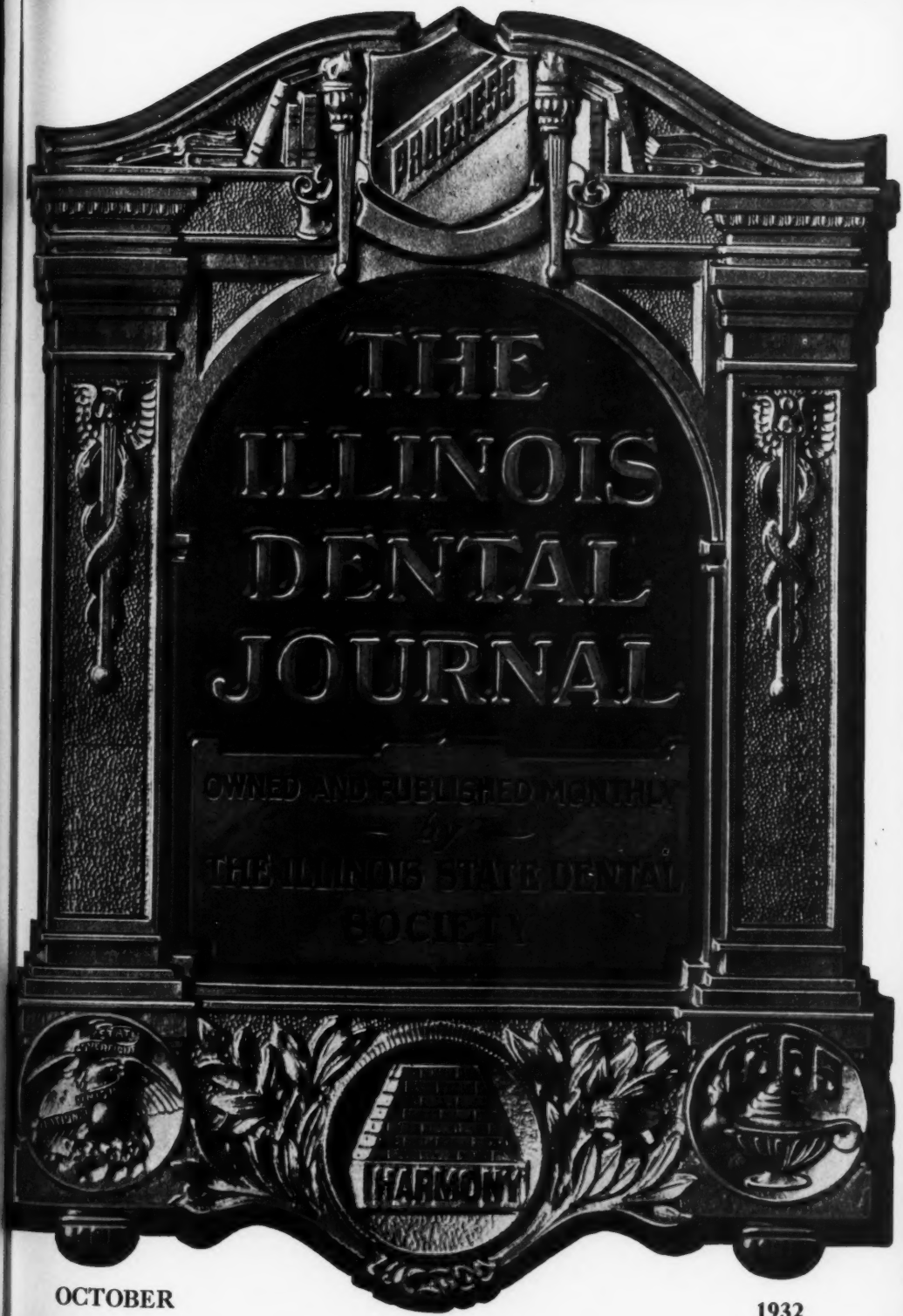

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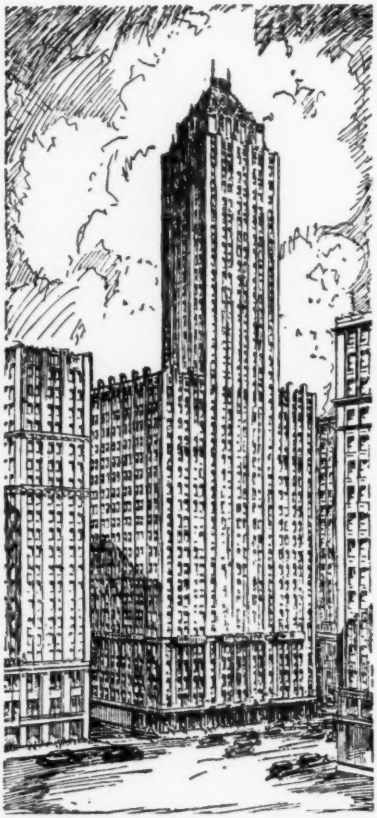

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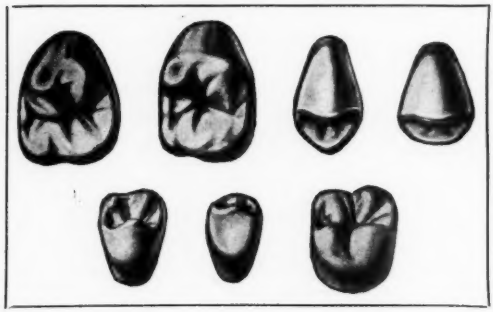

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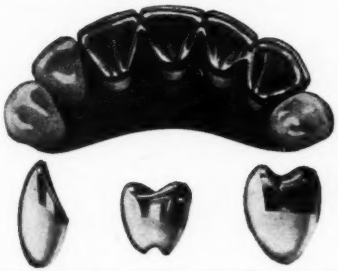

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VOL. II OCTOBER, 1932 NO. 2

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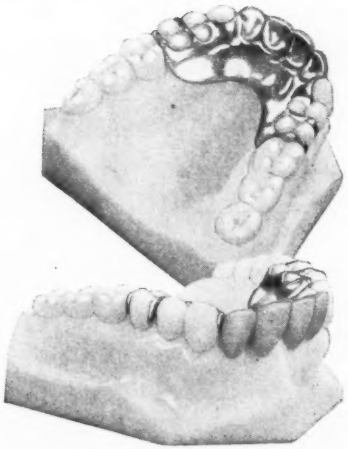

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YES, THE BIG A.D.A. where dentists may get in touch with dental progress is over for this year. In spite of the depression the meeting was well attended, there was much interest, and progress in dentistry goes on and on.

THE NEXT MEETING will be in Chicago, and the year following in Oakland, California, so we have something good to look forward to. In the meantime, let's make use of our own local meetings. Dental meetings pay big dividends in many ways. While many of the solutions are only illusions which the wise will avoid, there is always much wheat in the straw. Some useful ideas are always picked up.

THE BEST of the old and the best of the new were emphasized throughout the sessions. The sifting of old and new, good and bad notions of dentistry through the years is very interesting and useful as well.

SEVERAL CLINICIANS CRITICIZED so-called "silicate porcelains" and said they are masquerading under an assumed name. It was strongly urged that the right name, "silicate cement" should be used instead of "porcelain." One clinician declared that calling silicate cements "porcelain" is deceiving the patient and in the end boomerangs against us. This point seems to be well taken.

TWO NEW PORCELAIN BODIES were introduced and they are now on the market. APCO of Chicago and Dentsply of New York were exhibited by Dr. Forde of California and Dr. Clark of Pennsylvania, successively. Experience—by laboratories, dentists and patients—and time will test and bring out their real merits. We hope they both prove good.

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Owen E Cassill, D.D.S.

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THE ILLINOIS DENTAL JOURNAL

Volume II October, 1932 Number 2

RECENT EXPERIMENTS DEMONSTRATING WAX DISTORTION ON ALL WAX PATTERNS WHEN HEAT IS APPLIED*

By T. W. MAVES, D. D. S., *Cleveland, Ohio*

SINCE the casting process was given to the Dental Profession in 1907 by Dr. W. H. Taggart, we have experienced many different technics advocated by various operators for both large and small piece castings.

Although the principles underlying these various technics have for their execution differed in certain ways, they have added a great deal toward the progress made in this field.

In a brief review of all technics, past and present, you will note that each and every man who has presented a technic to the profession, has given one or more constructive thoughts to the process of casting. They have also inspired various groups and members of the dental profession to better, more precise methods and higher ideals.

To all those who have so unselfishly given of their time and efforts in uplifting and furthering this Art of Dentistry full acknowledgment and credit is due and given.

You will note that the majority of technics used in the past have been built around the apparatus and different materials used in the casting process. This accounts for the variation in technics; the pleasing as well as the discouraging results obtained by some operators coupled with the inability of some dentists to carry out the technic according to the specifications.

In our endeavor to make better castings, the variabilities which confront us are numerous, and I know of no better word selected to impress our minds with the hazards which we must encounter. I shall briefly enumerate eight of these variabilities.

1. The great variations in all materials used in casting, with no definite or precise control up to the present day.

2. The difference in setting and thermal expansion of the inlay investment material.

3. The different temperatures applied to the various investment materials.

4. The expansion and contraction of the metal ring used as a container for inlay investments.

5. The effect of spatulation on inlay investments.

6. The lack of heat control for melting the metals in casting.

7. The amount of pressure or force necessary to fill out the mould to prevent distortion.

8. The variations and distortions resulting from all inlay waxes when heat is applied for their manipulation and

*Delivered at Illinois State Dental Society meeting, Springfield, May, 1932.

also the variations in the investing process of the wax pattern.

Added to the above are many others too numerous to mention at this present time.

The following data is the result of numerous experiments upon small inlay wax patterns when heat is applied showing that all inlay waxes distort when subjected to changes of temperature; the distortions varying in proportion to heat applied.

The apparatuses used in carrying out these experiments were as follows:

A large magnifying lantern placed in a stationary position twenty feet from the screen with a large water bath containing the wax pattern and a thermometer submerged having an electrically controlled heating element supplying heat to the water bath. Photographs were taken of the tracings of the wax patterns starting at room temperature superimposing one tracing upon the other to compare the change of the wax pattern at different temperatures.

The wax used in all the experiments was comprised of all the present day inlay waxes. The experiments were classified into series lettered A, B, C, D and E. In all the series you will note from two to three lines used in making the various tracings known as solid line, dash line, and dotted line. The M. O. D. type of inlay pattern was selected owing to the complicated distortions arising from this type. A thought to emphasize in studying the slides and pictures is that of the large magnification of the wax pattern having one pattern superimposed upon the other at different rising and receding temperatures, showing very definitely the change resulting from room temperature to various registered rising temperatures, and then in certain slides the return to room temperature. The large magnifications will no doubt be a trifle misleading, but when the wax patterns are reduced to their normal size the changes are still present and in the same reduced proportions as visualized in the large magnifications.

Reference will be made in the slides to manipulated waxes, consecutive expansion of some wax pattern, poured waxes and location of the sprue pin on the patterns. When wax patterns are made for practical purposes for either direct or indirect method in Dentistry the wax must be softened, stretched, compressed and moulded into the desired form of pattern. This procedure will be referred to as manipulated waxes, also bearing in mind that manipulated waxes are used more in making the various small patterns than poured wax patterns.

†In series "A," number "1," you will note that the M. O. D. wax pattern was made by manipulating the wax as referred to above. The solid line representing the pattern at room temperature or 80 degrees F. Heat was applied to the water bath until 90 degrees was reached, at which time a tracing was photographed, superimposed on the room temperature tracing of the solid line. In comparing the change from 80 degrees F. to 90 degrees F. of the pattern you will notice that we have a shrinkage on the right gingival from the solid to the dash line; practically no change on the left gingival with a change on the pulpal wall as well as a thickening of the oc-

†We regret the inability to use cuts for the slides in this presentation and in others to follow due to the large number employed and the heavy expense connected with their use. We trust the description will suffice.—*Editor.*

clusal surface. While the left gingival would fit the cavity the right gingival would be short resulting in a distortion of the wax pattern, and not a uniform expansion, when only ten degrees of heat was applied.

Series "A," number "2," shows same pattern carried to 100 degrees F. in comparison to room temperature at 80 degrees F., resulting in a decided shrinkage toward the axial wall on the right side, and an expansion on the left side with a decided thickening on the pulpal wall from the solid line to the dash line. Again, this results in a definite increased distortion with an addition of 10 degrees F. and the absence of uniform expansion.

Series "A," numbers "3," "4," "5," represent the difference in a decided distortion at 105 degrees F., 110 degrees F., and 115 degrees F., the distortion increasing as the temperatures increased on manipulated waxes from the solid lines to the dash lines.

Series "A," number "6," displays the same wax pattern carried from room temperature, 80 degrees F. solid line, to 120 degrees F. dash line and allowed to cool back to 90 degrees F. dotted line. It is self explanatory to observe that as the temperature was increased to 120 degrees F., distortion was greatly increased plus a twisting distortion on both the right and left gingival walls, and when allowed to cool back to 90 degrees F. or dotted line, a decided shrinkage as well as twisted distortion of the right and left gingival walls still remained. In the past six numbers of Series "A," it can be stated that, as it is not dependable, the distortion of manipulated waxes cannot be controlled to occur in any particular place or area.

Series "B," numbers "1," "2," "3," "4," "5," and "6" also Series "C," numbers "1," "2," "3," "4," "5," and "6" represent patterns of different inlay waxes responding in like manner to Series "A," resulting in the following fundamentals:

1. They distort with increased temperatures and are non-controllable.

2. No two results of tests for distortion ever come out alike.

3. Wax when once expanded (no matter how little) will never return to its previous position; even after repeated expansion of the same wax, same pattern, and allowed to cool each successive time.

Series "D," numbers "1," "2," "3" and "4" display the expansion of the same pattern in consecutive periods, proving the third fundamental mentioned above in Series "B" and "C."

In studying Series "E," numbers "1," "2," and "3" of poured wax patterns, we will note that distortion still remains with us, but on the other hand wax which has been poured into form or shape and allowed to cool without any pressure, has the least amount of distortion when heat is applied. We also find that poured wax patterns will distort less with higher temperatures than manipulated waxes.

In slides "F," "G" and "H," the experiments of the location of the sprue pin or leads to the M. O. D. pattern when heat is applied resulted in a great distortion of the opposite wall of the pattern from whence the sprue pin was inserted. This can clearly be visualized by studying slides "F" and "G," also the different changes from 76 degrees F. to 123 degrees F. in slide "F," and 68

degrees F. to 116 degrees F. in slide "G."

In slide "H" the sprue pin was inserted in the center of the occlusal surface, and two wax sprue leads from the main sprue pin to each opposite occlusal angle having three sprue leads to the pattern known here as a braced pattern. When heat was applied from 68 degrees F. to 120 degrees F. it resulted in less distortion than "F" and "G." Although a manipulated wax pattern, we received a comparative even expansion up to 112 degrees F., also resulting in a contraction as per dotted line when heat was increased to 120 degrees F.

Offered as an opinion, the location, size, etc. of the sprue plays an important part in the distortion of all wax patterns. Although the last three slides demonstrate clearly the above results, it is offered as an inspiration to continue the experiments; and added opinions and results will be greatly beneficial to this line of thought.

Now to summarize the above experiments:

1. All inlay wax when subjected to change of temperature distorts, varying in proportion to heat applied.

2. Distortion of present known waxes is not controllable except to a certain extent as it cannot be depended upon to occur in any particular location or area.

3. No two results of tests for distortion or expansion ever come out alike; only an average result is possible.

4. "A." Wax which has been poured and allowed to cool without any pressure has the least amount of distortion when heat is applied. "B." Poured waxes will permit higher temperatures than manipulated waxes.

5. The consecutive expansion and recooling of the same wax pattern does not relieve internal stresses of any inlay wax pattern.

6. Manipulated waxes distort greater with less heat than poured waxes without pressure.

7. There is but one condition under which wax will expand equally; that is in the case of a sphere, where the dimensions from center of sphere to all directions are equal, and only then when the wax has not been subjected to manipulation or pressure.

In conclusion and as a suggestion, obviously it appears more practical to concentrate our efforts upon a technic which will be standardized around the setting and thermal expansion of inlay investments. Also continuing the use of a cold, thick putty-like mix for the inner walls and surfaces known as a hard core; casting into a hot mould proven as an expanded mould; rather than depending too greatly upon the expansion of wax patterns, resulting in distortions and not uniform expansion as shown by the above experiments.

The data from these experiments are presented to the dental profession with the view in mind of stimulating further research, resulting in the future for a standardization of small piece castings, and with no criticism toward any individual or technic for the art of casting presented prior to this time.

SOME INDICATION THAT DIET DOES INFLUENCE GINGIVAL CONDITIONS*

By AUSTIN F. JAMES, D. D. S., *Chicago, Illinois*

CYCLES come and cycles go and there is no question but they will continue to do so. When one has practiced dentistry for forty years it is interesting to reflect on the various waves that have passed over the profession during that time. We once thought if a gold crown was placed and the band carried under the gum we had saved that tooth permanently. There was also the same belief regarding a good malleted gold filling. It required only a few years to find out that this was not essentially true in many cases.

Since that time there have been many innovations: Cataphoresis, ionization, ipecac treatment, analgesia for painless dentistry and the "clean tooth never decays" theory, or the practice of prophylaxis. Now we have the one hundred percent extractionist, also the eradication of pyorrhea by surgery, and many others. No doubt every fad has benefitted its followers and to a degree the entire profession. Just now the nutritional factor as the cause of dental caries and possible gingival disturbance, is considered by some as new but in reality is as old as any theory in dentistry.

No dentist is willing to admit that he cannot clean a set of teeth and yet as failures go, that is one of our greatest. The excuse is usually given that patients neglect the home care of mouth and teeth. But how can patients be expected to do intelligent work with a tooth brush if the dentist does not teach them. It is easy enough to blame faulty diet and general health conditions for the deplorable mouths we see both in children and adults, but until the dentist becomes a better teacher and assumes greater responsibility in the removal of all deposits on teeth and the smoothing of tooth surfaces there will be little progress in prevention. The prevention of dental caries and gingival inflammation must be accomplished through mouth hygiene in so far as the knowledge of dentistry is concerned at the present time. Until thorough tooth and mouth cleanliness is accomplished there are no grounds for the dentist to assume that there could be any other cause for gingival disturbances and the decay of teeth. It is only when all known hygienic measures have failed that we are justified in looking for other causes.

Animal experimentation makes it seem that the pulp of the tooth is the first tissue to show the effect of deficient diet. The animals under observation have not been starved, in fact have been given all the food they can eat, but have not been given sufficient green vegetables or fruit, or in other words, an unbalanced diet. There is no need to go into the animal experimentation as every dentist has read much of these procedures. But can we apply these findings to the human tooth and supporting structures?

In a study of the diet of all patients showing gingival disturbances, aside from those directly due to mechanical

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irritants, we find that there is usually some bad selection of food in the habitual diet. The enzymes of digestion make it possible for all foods to be so completely broken up into the elements necessary for assimilation that the individual may go a long time on what is considered a deficient diet, without any apparent systemic manifestations. It is a recognized fact however, that some people are more susceptible to these deficiences than others, which is probably due to differences in metabolism acquired by different races through heredity. Man may be able to synthesize some one or all the vitamins, but the ability to do so may vary considerably in different races or even different members of a given family. Recognizing this fact is what makes the individual problem, which we must study in our patients as they present themselves for our services. Systemic complications and nutritional factors must be considered in all cases of gingival disturbance. This has long been recognized and is nothing new. The point undertaken here is how to apply the knowledge to our own subject.

Every proponent of a certain theory finds symptoms to support that theory. Certain groups of dentists say that if there were no such thing as constipation, there would be no periodontal disease. Others, that unbalanced endocrine gland secretions are the disturbing element. All these conditions no doubt have their influence and should be considered.

Wishing to present something for the practical man to apply in all cases the suggestion is made that mouth hygiene is the first consideration and that thorough and definite methods of cleanliness should be employed in every case before any other factor is seriously considered. In obtaining hygienic results there will be time to observe and inquire into individual systemic and diet conditions.

Observation shows that our typical American diet of meat, bread and potatoes, though good and substantial food, should not be eaten to the point of satisfying hunger. Thus it becomes important to advise patients to select salads and green vegetables as well as fruit juices to be eaten before or in connection with the more hearty foods. It has been proven that in almost every case of chronic gingivitis and in many of the more acute conditions the diet is deficient on the vitamin side and that changing this diet brings about improved and lasting results. The only difficulty is in persuading the patient to take these foods in large enough quantities. However, the simplest corrective and a very pleasant one is a pint or more of orange juice taken during every twenty-four hour period. Tomato juice appears also to be efficient and some patients prefer it.

A few case histories might be interesting.

Case one:

A young man twenty-seven years of age had lived on very rich foods; cakes and sausage for breakfast, luncheon and dinner of roasts and all heavy foods with little in the way of green vegetables and fruits. He had been in our practice for some years and had consistently followed instruction as to home care of the mouth.

One day he came in the office with a decided gum inflammation and was running a temperature. He was advised to go to bed and call a physician to de-

termine the cause. I asked to be informed of his condition by Thursday, but did not hear until Saturday, when his physician called and advised a visit to the home as he had a bad mouth condition. I found that scurvy had developed in a marked way. The physician disagreed as there were no symptoms other than a high temperature. The patient was put on one quart of orange juice and advised to take no other food except milk enough to satisfy actual hunger that he might feel after taking the orange juice. The gums were painted daily with acriviolet to prevent infection. In one week the case was completely cured and has never recurred. The patient, however, has maintained a very balanced diet.

Case two:

A young Italian thirty-four years of age with a perfect set of teeth. That is, no decay and good alignment, but a very bad pyorrhea condition. Six years before the patient had very severe treatment with arsenic and mercury for a case of syphilis and evidently had been salivated, though his physician paid no attention to this result.

On examination the teeth were found to be very loose and a typical case of advanced pyorrhea. His diet generally was, breakfast: one cup of coffee. Luncheon: a sandwich and coffee. Dinner: one pound of spaghetti with lots of wine and some times a bit of meat. Thorough pyorrhea treatment was given and advised a diet that would build bone. First orange juice, milk, eggs and many green vegetables. After that, any food he wished to satisfy hunger. After a period of four months there has been no pus and the teeth are much firmer with every indication of continued improvement.

Case three:

A young man twenty-nine years of age with a beautiful set of teeth had been taught good prophylactic care by a dentist in Cleveland. He was transferred to Chicago by his firm and formed an acquaintance with some men who had a cottage at the Sand Dunes.

He suddenly developed an acute case of ulcerative gingivitis and was referred to me by his Cleveland dentist. Noticing a peculiar tinge of the eyes and complexion in general I asked him on a sudden inspiration, how many eggs he was eating. The young man looked surprised and smilingly told of his Sand Dunes experience. They were cooking their own meals and eating eggs three times a day because they were cheap and easy to prepare.

The diagnosis was protein poisoning. He was put on orange juice and milk with only acriviolet painting of the gums as local treatment. Within a week there was a complete cure.

These cases are recited to show that unquestionably the conditions were brought on by improper diet.

FEAR—CONTROL AND ANESTHESIA IN CHILDREN'S DENTISTRY*

By ELIZABETH M. CONROY, D. D. S., *Belleville, Ill.*

IN THE past five years the need for children's dentistry has become more and more prevalent, until at the present time it is greeted as a praiseworthy specialty, where it was formerly met with veiled smiles of criticism and sympathy. The Rochester and Forsythe Dental Dispensaries are dedicated exclusively to the service of children. By their very existence they should prove to the dental profession that it is necessary for children to have proper oral care. Also they have imparted knowledge as to how and when children who are *not* entitled to the service of clinics are to be treated. The public health service clinics are taking care of a larger number each year through their expansion program, and are a wonderful aid.

This paper will deal with the children who are patients in our private practices, the children who are brought to our offices by their parents for the purpose of examination or in some instances, relief from pain.

In the discussion of Fear Control, our first question is, "Whence comes the original fear?" The answers are many. Children of today are subjected to fear by

1. Conversation of the adults at home.

2. Profound parental sympathy of a thoughtless nature.

3. A carried over fear of the physician due to previous illness of a painful nature.

4. Conversations with children who have not been properly handled by dentists.

Parents are great offenders. They come home from the dentist and go through all manner of physical gyrations because they were hurt. When the time comes for the little ones to make their first visit, they have absorbed enough horrible information to think of the dentist as an ogre, or giant who is sure to do something terrible to them. If this has not happened, we are liable to have the extremely sympathetic and nervous type of parent who says "We are going to see the dentist today, but you need not be afraid because he will not hurt you!" The mere mention of "dentist" to that child holds no fear; but when it is accompanied by the words "afraid" and "hurt" the entire nervous system receives a jolt, with the natural reaction of tears and physical objection. The blame for a kicking, screaming child of preschool age can always be laid at the doorstep of the parents' or other adult's thoughtless remark. A fear of the physician is unfortunate but can usually be controlled by asking the parent not to mention the name in the presence of the child until after confidence is won. The fourth cause must be blamed on thoughtless dentists. They are ignorant of the correct way of handling children, they do not want to learn, and at the same time are afraid of losing one or sev-

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eral families from their clientele. Consequently, rather than send a child to a specialist or attempt treatment, the dentist says: "Let those teeth alone. They are only the first set and will soon be lost." If the mother does not believe the dentist, the child is taken to another dentist and the patient, and possibly the family, is lost. If she does believe him, eventually an extraction is necessary. This is probably handled in such a way that the child is hurt and irreparable damage is done for all time and so another child looks upon all dentists as enemies.

Fear control is primarily confidence in the dentist. All our efforts covering the first visit of a child should be toward the one goal of confidence. In discussing the various situations that arise, I have divided my subject matter to cover the child of preschool and grade school age who has no previous fear of the dentist, and the same child under conditions of extreme fear.

The child who walks into the office with a look of interest in the new experience, in other words, with no previous fear, may well be classed as an ideal. With this type, age makes little difference. The name of the child should be known before the meeting. If the first visit is made without an appointment the assistant finds out the name and age. If the appointment is made over the telephone, it is well for the dentist to have a conversation with the parent. Nothing brings up the wall of reserve about the child as quickly as the two questions, "What is your name?" and "How old are you?" Since the child has been able to talk, these are the questions he has heard nearly every time a new face has appeared, until at the age of four or five, he has grown rather tired of answering. Over the telephone it is possible to ask the mother these and other questions. Does the child like elevators, airplanes or motor boats? Suggest that she say they are to visit the dentist who is a nice person that will look at Jack's (or Jane's) teeth and show how to take care of them and keep them pretty and white.

If possible, it is well to have a morning appointment. Children are at their best between nine and eleven o'clock. They are neither hungry nor sleepy. They should not be allowed to wait more than a very few minutes. On this first visit depends their whole life's dental outlook. I have several children in my practice who do not remember the first work done for them, but who are ideal patients, permitting cavity preparation at the age of ten with no more than a murmur. I am sure that many of you will find this to be the case in your own practice.

After the preliminary greeting to the parent, turn to the child and greet him with a good morning or how do you do, calling him by name and shaking hands. Boys are particularly susceptible to anyone who thinks they are big enough to shake hands. A certain amount of genuine flattery is always a good idea. I do not mean so called "kidding." Children recognize this very quickly and the defense wall is apt to be built up. No child ever lived that did not have some good point to which attention could be called.

As soon as possible suggest going into the work room, office or whatever you choose to call it. Invite the parent to

accompany you on this first visit. Before seating the child, walk around showing the cabinet. Open the cotton drawer, tooth paste drawer, and the drawer containing prophylactic brushes. Then show the chair and cuspidor. The child may have to step up on the foot rest of the chair in order to look into the cuspidor. If the child likes elevators (you have previously determined this) compare the chair to a small one. If not, do not be too proud to use the barber's chair as an example. If you know neither of these are going to work, have the chair at the proper elevation and assist the child in climbing up. Adjust the towel and you are ready for work, approximately seven to ten minutes after the patient has entered the waiting room.

The mouth mirror is a tiny looking glass, the explorer is a tooth pick. Introduce these instruments first. It is just as well to get out two mouth mirrors right away, one for your own use and the other for the patient to watch his own eyes. After examining for cavities, get ready to give a light prophylaxis and at the same time explain the dental engine. Show the child a small mounted rubber cup. Allow him to hold it in his hand, explaining that it goes round and round in this little handle—at this time draw forward the engine arm. Insert the cup, turn on the switch and run the rubber cup on your own finger, then on the child's. Do it lightly so as to cause no friction. Next get a clean cup, at the same time giving a mouth hygiene lecture on cleanliness, place it in the handpiece, use a small amount of flavored cleansing paste and run the cup slowly on the upper anterior teeth. Progress to the lower teeth, then to the posteriors.

So endeth the first visit. It has been a game all the way through, the child is happy and confidence has been gained. This sitting should not be longer than fifteen minutes at the outside.

The next type with which we deal is the preschool child who is suffering with toothache, but who has no fear of the dentist. As a general rule the parents of this child are ignorant of the fact that baby teeth can decay and cause trouble. Their first reaction is one of surprise and later alarm. This is probably the first real hurt with which they have had to deal. The dentist is usually called for the appointment, which should be given for the earliest possible moment at which the child can be brought to the office. Instruct the parent to tell the child he is about to visit the dentist who will help make the tooth stop hurting. This places the child in a receptive mood, making him ever so much easier to handle.

As soon as possible after the parent and child enter the waiting room, greet the parent and turn to the patient. A profound sympathetic attitude and a suggestion of relief should be the subject of a very short conversation, after which the child should immediately be taken to the operating room. Pass up extra explanations except to say that we have all the things in this little room to make children's teeth strong and well. Place the patient in the chair and sit either on the arm of the chair or on an operating stool at the level of the child. As a side remark, at this point, may I suggest that every dentist who does not have one should buy an operating stool

and use it, thereby preventing flat feet and many other ailments to which dentists eventually fall heir.

Place the necessary instruments on the bracket table only as they are needed. First the mirror and explorer, then the pliers, which may be called cotton pickers and demonstrated as such by picking up and laying down a pellet of cotton. Work as swiftly as possible, doing just what is necessary to relieve the pain. If the tooth is badly decayed and causing pressure from the formation of an abscess, the engine may be necessary in order to puncture the pulp chamber. Remove all superficial decay with excavators, calling them spoons such as fairies use to eat their dinner, or whatever you happen to think of saying. When the time for the use of the engine arrives, bring it forward. It is very easy to tell whether or not the patient is going to object. If you deem it necessary, place a large round bur, preferably dull, in the handpiece and run it backward very slowly, touching your own finger, then that of the child. Then supposedly, because you want a clean buzzer to put in the tooth, change to the sharp bur of the type you desire and proceed.

Preliminary to placing a drug preparatory to sealing up an aching tooth, it is generally necessary to place cotton rolls in the mouth. Get out at least one more than you expect to use. If the child is a girl, by all means make a cotton roll powder puff and give it to her. The boys usually like a No. 1 roll cut about three inches long to hold and later use for a cigarette. It is now possible to place the cotton rolls in position, place the drug in the tooth and seal it, either with temporary stopping or temporary cement.

The dismissal comes as soon as relief has been accomplished. It takes only a moment of joking to make a child laugh at this point. Always suggest the return because the tooth is not really well and might hurt again.

The child in grade school is treated not materially different from the preschool child. The sympathetic attitude and suggestion of relief are very important as well as the explanation of instruments they have never seen. In explaining the various operations to girls between the ages of seven and thirteen I compare the instruments to fairy tools. With boys of the same ages, we get down to material things and talk about gardeners' and carpenters' tools. As soon as the treatment is finished, a similar post operative discussion must ensue, relative to the relief afforded and the subsequent return for treatment.

We now come to a totally different child—the one who *is* afraid of the dentist. At this point all our knowledge of child psychology is called into play, because we are dealing with an individual who, at least in one phase of its life, is subnormal and ruled by fear. As in the discussion of the previous type we will deal first with the preschool and then the grade school child under the two different circumstances of examination and relief of pain.

If the child is quiet when you enter the waiting room, pay no attention to the look of dumb terror in his eyes. Greet him naturally, calling him by name, then have a few minutes' conversation with the parent. If possible, I have some young veteran patient for the

preceding appointment. The effect of the youngster walking out with me talking naturally or laughing at some foolishness will frequently dispel a great portion of the fear of the newcomer.

If the child is crying, immediately express sympathy at his pain. Suggest that perhaps he has a stomach ache or a cut finger. Appear surprised at the fact that it is none of these, and turn your attention to the mother. Talk about other things for about thirty seconds, then bring the conversation back to the child, saying that he is a big boy, admiring his clothes or calling attention to him personally in some way. It is unwise to insist upon entering the operating room. The conversation should be directed to the child at this point, telling about the instruments, and the airplane that goes flying to clean teeth. Then ask to see his teeth. Usually this closes the mouth and lips tight, but when the *demand* is not made and the subject is dropped, the lips will gradually relax and the mouth will open slightly. Just a glimpse is enough for the dentist to say he has seen the teeth and that they are very pretty. Flattery here is quite essential, coupled with an attempt to arouse the child's curiosity about the other room. This all takes less time than telling it, after which the mother should be invited into the operating room. This entrance is gradual, of course. The exploration trip may be longer, and as soon as the child is in the chair, adjust it to the correct height and let him touch everything possible. Turning the water on and off, pressing the air syringe and using the bracket table as an automobile steering wheel are a few of the things that save much time later on. Present a gift from the dental cabinet immediately, either a cotton powder puff, a cotton roll doll, a tooth paste sample or a small book.

Where no help is obtained from the parent, the procedure must be different. Do as much as possible to gain the child's friendship in the waiting room. Where there is a lack of cooperation or understanding the parent's remark will probably be, "It's no use, I know you can't do a thing with him." If there is this attitude, explain that you are going to talk to the child alone. Then pick him up, carry him into the business office or operating room. Talk firmly in a low voice, demanding that the crying cease. Call attention to the fact that there is no other noise, that you thought he came in to show his pretty teeth, and that there is no reason for crying. Then say that his mother can come in when the crying stops and *not before*.

I have never had this occur except with spoiled youngsters between the ages of 4 and 5. They are actually very amenable to authority and firmness, so they stop crying. When the smile has arrived and the child is seated, invite the mother into the operating room. At the sight of the sympathetic parent, the tears usually start, and the warning must again be given. This time the mouth is opened without further objection.

Regardless of the condition of the teeth the first examination should be flattering to the child. Call attention to the tiny specks of stain that must be removed from the teeth. Show the airplane engine, turning on the switch and allowing the child to hold the handpiece. Then show the small rubber cup, using in it a bit of tooth paste from a

sample tube. Proceed in the same manner as before. From now on all that is necessary is to convince the child that he is not going to be hurt.

Children of grade school age usually are not crying when they enter the office. They are more likely to have an amount of nervous tension equal to partial paralysis. The different types here may be classed as the wary, the rebellious and the terrified child. Unruffled calm must be practiced to deal with any or all of these.

The conversation in the waiting room should be one of gentle assurance to the patient. As soon as possible have the child enter the operating room.

A detailed explanation of all the dental instruments is again necessary. When fear is uppermost, the assurance to the child that we really do not look like giants who eat little boys and girls will usually make the patient laugh. The conversation, whenever it is changed should be diverted to school, the current sport topics or anything that appears to interest the child. During this time the examination for cavities is going on. An explanation should be made of the danger of tiny defects, showing how they can be repaired. Then a gentle prophylaxis should be given using instruments first and polishers in the engine later. Whether it is necessary or not, I believe the engine should be used as that is the one thing of which the child is most afraid.

All patients should be dismissed when it is seen that confidence is appearing.

In relieving the pain of the preschool child who is afraid it is necessary to have all the knowledge possible as to cause of the fear. The parent of this child is generally ready to cooperate in any way.

Frequently the patient must be carried to the operating room. Effort must be made however not to make this seem a forceful entry. Disregard the fear attitude at first, talking only of the suffering. Present a gift shortly after the entrance to the office.

After exhausting all the sympathetic methods at our command with small result, firmness is necessary. The child is held in the chair, the mouth is forced open and the palliative treatment placed. Every effort must be exerted to stop the toothache, because at this time only results can accomplish the desired confidence. The child must not leave the office until the crying has ceased and at least a vestige of a smile has appeared.

With the grade school child under the same circumstances, their terror is increased by the pain they are enduring. Consequently the only method is quick relief. The same method of handling the child is used as in examination with the added sympathy and suggestion of stopping the toothache. In the operating room, an explanation in simple terms, of what must be done is absolutely necessary.

I have purposely not mentioned extraction, because I feel that it has no place in the first visit of a child to a dental office. At times a young person has been so unfortunate as to have a first permanent molar decay to the point where extraction becomes necessary. This rarely, if ever, occurs before the age of eight. Usually it is after the ninth birthday. A child of this age is amenable to reason and if immediate extraction is the only method of relieving

pain, it is possible to produce sufficient psychological control to permit the use of an anesthetic and the subsequent removal of the tooth. This, however, is the only instance of which I know, where it is necessary to extract a tooth at the first visit. Any average dentist should certainly be able to relieve the pain in any deciduous tooth with sufficient thoroughness that an extraction is neither indicated nor desired. Confidence must be gained before extraction can be accomplished without making an enemy.

However, occasionally extraction becomes necessary, and the subject of anesthesia becomes paramount.

In any case where an anesthetic is to be used, we must presuppose that the anesthetic is to be administered by one who is thoroughly familiar with every phase of its correct and efficient administration. If the dentist himself is not an expert anesthetist, he should then have the courage to call in such an expert.

For the small child a general anesthetic is preferable. The sensation following the injection of novocaine is one that is hard to combat psychologically. Even though the anesthesia is perfect, the small child will be frightened at the removal of the tooth.

As to types of general anesthetics, we have Ethyl Chloride and Nitrous Oxide.

For the dentist who knows how to use it, I believe Ethyl Chloride is a very favorable anesthetic. The danger connected with its use in the hands of inexperienced operators is known to most of you, but as a general anesthetic it seems to leave no nausea or other ill effects, and the child recovers very rapidly. I have watched the administration of Ethyl Chloride in the Forsythe Dental infirmary where it is used almost exclusively and the recovery is certainly much faster than that following the use of Nitrous Oxide.

Nitrous Oxide or Ethylene in combination with Oxygen have proven to be extremely valuable in general exodontia and are very successful when properly given to children. They have proven their worth and should not be ignored by anyone who is endeavoring to serve these little ones. In view of the fact that the technique of administration of these gases is not under discussion at this time, there will be no attempt to outline any principles of their administration except those which might be called psychological.

The expert anesthetist uses every possible subterfuge to gain and hold the confidence of the child. This means that he must bring himself as nearly as possible to the level of that child. Once he has gained this confidence, he should endeavor to hold it by his voice in the early stage of the induction. As this early stage passes and the period of possible excitement begins to show itself, the average child will take two or three very deep breaths which may be accompanied by cries. With smaller children the anesthesia is usually complete at this time. Here again the voice of the anesthetist is very important. As the child inhales deeply, he can and should talk in some fashion that will tend to quiet the fears of the youngster. It is useless for him to say a word during the time that the child is giving vent to its long cry, for he will not be heard, but the child *will* hear the voice during inhalation. With

older children, the same technique is applied, only they are usually less likely to do much crying, and will generally pass into complete anesthesia with little trouble.

Prior to the administration of the anesthetic, the child may be shown the rubber bag and invited to blow it up, through the mask. Then he can be told that he can try to blow it up again, and that by the time he blows it up full, he will be asleep, and most probably having funny dreams about his pets, or the circus, or anything that may interest that particular child. Caution the child to remember the dreams so that he can tell you about them when he wakes up. Little things of this nature are not at all little to the child, and they generally serve their purpose.

When the child regains consciousness this preliminary process should be largely gone through in reverse order. The child generally comes through such an experience with very little shock, and will most likely be a good patient if another anesthetic should be required at some later date. If, however, the child has been mishandled in a preceding anesthesia, the operator may find himself compelled to anesthetize his patient by whatever method of forcing that he can apply.

In the use of local anesthesia we rather feel that there is little excuse for any method except that one which is known today as conductive anesthesia. There is but little more danger of a broken needle in this method than in infiltration. The number of punctures is decidedly fewer, and the danger of disseminating septic material throughout an already overburdened area is infinitely less. In addition to all this, the anesthesia is invariably successful, and after all a successful anesthesia *is* important.

Never, under any circumstances should a child be told anything but the truth in a dental chair. He must never be told that he will not be hurt, in order to gain his confidence, only to have his opinion of the dentist changed forever when he is hurt. If some pain is unavoidable, tell him so. If he is *not* going to be hurt, make that promise to him, and then, if it is the last thing on earth that you do, keep that promise. Dentists do not hurt their patients without knowing they are going to do so. This fact makes unannounced pain an unnecessary thing.

The insertion of the needle in many cases, should be preceded by the application of some surface anesthetic. The actual insertion of the needle should be made rather swiftly and accurately. The child should be cautioned of the feeling of anesthesia that will follow the injection. As a matter of fact a great deal of fun may sometimes be had with the youngster who is feeling this anesthetic, by handing him a mirror and outlining the anesthetized area on the face.

It must be remembered, that conductive anesthesia may be used for cavity preparations as well as for extraction.

Another type of pain minimizer of value in Children's Dentistry is the surface anesthetic. Desenitizing pastes and liquids, applied to the cavity before preparation for fillings help very much in controlling pain and fear. There are quite a number of these that can be used successfully if the directions are followed, but it is well to use those that

have been tested and approved by the Council on Dental Therapeutics.

Many of the remarks and suggestions made up to this time have been merely more or less summarizing that thing which we might call common sense mixed with a little of the courtesy that is due to childhood. Several years ago Dr. Edward H. Angle wrote a paper in which as a finale, he gave some suggestion as to who should enter orthodontia. The suggestions which he gave in that paragraph are so very applicable to all who work for children that we take the liberty to quote it verbatim.

"And, finally, to those who love little children—and certainly none other should enter the profession of orthodontia—the pleasure of working for so delightful a clientele is very great, as is also the joy and satisfaction of so early, with such comparative ease and with such reasonable hope of real success, restoring to normal, conditions which we know must otherwise often develop into far-reaching, often serious and even deforming handicaps which must soon become difficult or impossible to wholly normalize, and the ultimate effects of which can never be wholly eradicated."

TYPES OF RESTORATIONS AND SPACE RETAINERS IN CHILDREN'S DENTISTRY*

By LOUIS F. TINTHOFF, D. D. S., *Peoria, Ill.*

THERE is a growing realization among dentists of the great importance of children's dentistry. That this has come about through a demand of parents and not through the profession is a very sad blow to our professional standing.

The school dentist, the school nurse, and mothers' clubs have brought about this change. The parents who can and will pay for good dental service for their children will no longer be put off with "they are only baby teeth and will soon be lost." They will no longer put up with abscessed deciduous teeth, and they demand that these spaces be filled so that no oral deformities, mental or physical, will result.

Among the very able men who have reported on their progress in children's dentistry, Dr. R. C. Willett of Peoria has done very important work in the establishing of the proper mesio-distal relationship of the deciduous teeth and in the study of "Interception of Malocclussion."

By the application and technic of the cast gold inlay for deciduous teeth and the functional space maintainer, Dr. Willett has made great strides to place children's dentistry on the high plane where it rightfully belongs.

There are many dentists who use only copper cements in the filling of deciduous teeth, but to expect a cement filling to hold under the stress of mastication or to hold contact is readily conceded to be impracticable, and cement, other than temporary fillings or bases, therefore, must be discarded as an unsatisfactory filling material.

*Read before the annual meeting of The Illinois State Dental Society, May, 1932.

If an amalgam filling could be properly placed in a deciduous tooth it would make a satisfactory filling. In order to place an amalgam filling which will not break out or chip it is necessary to cut a deep cavity which only too often endangers the pulp. A matrix is very hard to fit to a deciduous tooth satisfactorily and no child will sit quietly by while amalgam is being placed in the cavity with from two to eight pounds pressure.

Granting that some proximal amalgam fillings which are placed in deciduous teeth are satisfactory there are many advantages which the cast gold inlay has over amalgam fillings.

The cavity is prepared entirely with stones which practically eliminates pain. It is not necessary to cut the cavity as deep for the gold inlay or to make undercuts in the cavity which approach the pulp, or which might break down due to stresses of mastication. The contact point is restored as well as the anatomical tooth form.

The preparation of a proximal cavity in a deciduous tooth for an inlay is performed entirely with hand instruments and stones. The cavity is opened and the decay removed with hand instruments. Then with a large knife edge Chayes Crystolon mounted point No. 37 or 38 a sharp groove is cut from the gum tissue on the buccol to the gum tissue on the lingual. The same stone is then used to cut the proximal, enough is cut away to allow a sharp margin at the gingival. The gingival and the proximal walls are then squared with a No. 28 flat end cone stone. The cut joining the proximal and bucco-lingual cuts is made with a small No. 38 stone, this may also be smoothed with the flat cone shaped stone. In running stones on tooth structure a steady stream of warm water should be run over them or a small amount of cocoa butter should be used, the latter is usually preferable. Any undercuts which have been left from the removal of the caries should be filled with zinc oxide and eugenol, often in deep seated cavities a few crystals of silver nitrate are added.

After the preparation the cavity should be carefully cleaned before the compound impression is taken. A special tray with clips is necessary for this. They may be obtained from the Blue Island Specialty Co. The compound impression is then taken using a medium setting compound.

First a small amount of S. S. White black impression compound is thoroughly heated, in hot water and placed in the tray and locket in position by pulling the compound slightly over both ends of the tray and locked in position by pulling the pressure, chilled and removed. Then a small piece of S. S. White Exact Impression compound is placed in the tray and with a firm pressure this is again seated, and chilled thoroughly with ice water, then removed. The cavities should then show in the compound impression with clean knife like cuts.

The impression is then filled with a thick mix of "Loheet No. 1" and vibrated to place to avoid bubbles. After the investment has hardened it is separated in hot water and wax is run into the cavity and carved. The proximal is finished by breaking the model at the proximal of the cavity and finishing the gingival without disturbing the contact point. The model is then sprued and invested and allowed to burn out in an

oven, overnight with a heat no higher than 400 degrees.

A hard platinized gold is used for casting, and because of the thinness of the casting it is necessary to use a pressure machine for casting, a good result cannot be obtained on a centrifugal machine. Tinkers "No. 2" has been found to be a very satisfactory gold. After the casting the inlay may be finished out of the mouth and cemented with either zinc oxide or black copper cement, whichever conditions may warrant the operator to choose.

From an economic view point these fillings can be placed in the mouth as rapidly as a plastic filling. Two approximating cavities can be prepared and the modeling compound impression taken in fifteen minutes. Setting the inlays will take approximately from three to ten minutes and the cost of gold in a filling of this type will be practically insignificant.

The technique of the semi-fixed space maintainer does not differ materially from the technique of the inlay. The teeth are thoroughly cleaned and a compound impression is taken as for the inlay, and a low heat model run up.

While the model is still warm from being separated a piece of 30 gauge wax is placed over the tooth and roughly adapted with finger pressure. Then it is carefully adapted with art gum using a firm pressure. The excess is cut away with a sharp knife from around the gingival, allowing an overhang of about one centimeter, and the pattern is cleaned with fifty per cent alcohol and water and invested and cast on a pressure machine as is the inlay.

Taking for example the loss of a second deciduous molar. The impressions are taken of the first deciduous molar and the first permanent molar.

The castings made from these impressions will snap to place with finger pressure and will hold firmly. A bite is obtained and the overlays are removed in a plaster or compound impression. The overlays are oiled and the model is run up of a standard soldering investment and mounted on an articulator.

A connecting bar is then adapted, fitting in the occlusal grooves of the opposing teeth. If the arch is narrow a growth can be stimulated by placing the bar slightly on the buccal cusps. The bar is attached to the first deciduous molar with a flexible pin and tube attachment to allow for the normal expansion of the arch. It is fixed to the first permanent molar. This type of space maintainer may also be used where both the deciduous molars are lost.

When the second deciduous molar has been lost and the sixth year molar has not yet erupted a space maintainer may also be employed. By means of an accurate x-ray the exact location of the first permanent molar is found. A modeling compound impression is taken and a bite. The remaining deciduous molar is used for anchorage and an extension bar is placed touching the mesial edge of the first permanent molar, this is determined from the x-ray and the model trimmed to the proper depth. The extension bar keeps the upper second deciduous molar from dropping. The first permanent molar will then be guided into its proper place. In setting it is often necessary to remove a small amount of tissue from over the first permanent molar.

In a child where the first permanent

molar has not yet erupted and all four of the deciduous molars, lower or upper, have been lost it is necessary to resort to prosthetic measures. These differ little from those which we would construct for our adult patients.

In all cases it is advisable to keep models of the children's mouths. The practitioner is then able to show the parents the results obtained, as well as for his own individual record.

It is the duty of every dentist to see that every child which enters his office has the highest type of service, if he is not capable of rendering this service, it is then his duty to see that child is placed in the hands of a man who can do the work properly.

SUPERNUMERARY TEETH—A HINDRANCE TO DIAGNOSIS AND TREATMENT*

By W. W. MARTIN, D. D. S.

SUPERNUMERARY teeth are relatively rare, and not of frequent occurrence, however they are common enough that a fairly large number are responsible for conditions which are abnormal and pathologic.

Bateson, in his book on the materials for the study of variation, says that in cats, supernumerary teeth occur in seven per cent of all skulls. It is doubtful if it is of such frequent occurrence in the human. Whether it is or not, we often see deformed and ugly dentitions which are the result of the presence of supernumerary teeth.

According to Pullen, "the most frequent location in which they are to be found is in the incisor region and are simple cone shaped, but may be multiple."

Simpson states that "in this region, they are not usually important clinically, and in the absence of symptoms should be disregarded."

With the above statements quoted, there should be no excuse for permitting this frequently ugly deformity to persist in the mouths of our young patients, as the most of the complications for which these supernumerary teeth are responsible, can be avoided by early recognition of their presence, and the proper treatment instituted; in many cases, a simple extraction at the proper time may be the means of avoiding the majority of cases of non-eruption, delayed eruption, extrusion, separation and malposition of the permanent teeth. However, when one considers the difficulty of removal and the possibility of injury to the permanent tooth, that removal involves, a conservative attitude toward the tooth in question in justified.

The small multiple cone teeth found in the lingual or buccal embrasure of the upper molar and pre-molar region should be approached with caution; while they may occupy a separate and distinct socket, the chances are about equal that there is an attachment to the adjacent tooth. This attachment is not one accomplished by the proliferation of

*Read before the Illinois Dental Society at Springfield, May, 1932.

cementum after the development of the tooth, but is developmental (called by Black a dichotome) and has a common root canal attachment. The operator must proceed only after having such a case radiographed and then he must be sure when grasping the tooth to be removed, that the adjacent tooth does not move at the same time.

Supernumerary teeth are often readily distinguished from the adjacent normal teeth by their variations in form. Frequently, however, their resemblance to the normal teeth renders the diagnosis extremely difficult; also in view of the fact that a large percentage become cystic it is important to have frequent and complete radiograms so as to prevent possible extensive loss of teeth, involvement of the maxillary sinus and other complications which are so often associated with these conditions.

There is another condition sometimes met with in the upper molar regions; while not so frequent, it sometimes happens that the upper second molar is joined to the third molar, or the third molar and a supernumerary tooth are united. In the removal of a tooth thus united, it sometimes happens that both teeth are carried away, or one may be broken loose from the other, leaving a jagged edge which does not allow the wound to heal, and results in the early loss of the other. Sometimes one of the teeth so attached is completely imbedded in the process, or covered with the gum tissue, causing a more or less complicated problem.

Dr. Edward C. Stafne of the Dental Surgery Department at Mayo's reports on two hundred supernumerary teeth that occurred in the region of the upper central incisors of one hundred and eighty patients. Of the group, twenty had two supernumerary incisors, a fact which indicates a definite tendency to bilateral occurrence. Only 21 of the total number of teeth erupted, with the majority or 114 inverted in their position. In 24 of the teeth, in this series, there was definite evidence of dissolution. In the few cases that we have had contact with, the same conditions stated in the above report are quite evident. There is also in a few instances the same condition present in the child that was said to be present in another member of the family. This, however, cannot be said as being entirely correct, because the other members of the family have not been observed, so as to make an accurate check. However, in Dr. Stafne's report, he says a sufficient number gave histories of the same abnormality having been seen in other members of families to corroborate the belief that it has a hereditary tendency to occur.

While some are within the line of the arch (or anterior to it) they usually erupt lingually. In the latter location, they do not often deform the shape of the arch, but do interfere with speech and mastication. A tooth in this region, upper or lower, is almost without exception in a distinct socket, and may be removed without hesitation.

Supernumerary teeth have been described and classified, and various theories of their origin propounded by dental writers to a greater or lesser degree, but the practical treatment of their resultant malocclusions from an orthodontic standpoint, has been somewhat overlooked. The generally accepted

rule as to treatment of the average case has been to extract the supernumerary teeth and give nature a chance to realign the teeth, which have been forced into positions of malocclusion.

Further than the extraction of the supernumerary tooth (or teeth), it is often necessary to restore to normal arch alignment, teeth which have been displaced mesially, distally, labially, or lingually, or rotated out of their abnormal positions, to close up spaces caused by extra teeth, to relieve impactions, and to contract the dental arch when it has been broadened by the supernumerary teeth.

DISCUSSION OF DR. PETERSON'S PAPER IN AUGUST ISSUE

By ROBT. C. BROWN, *Laboratory Technician*

Editor's Note:—We are glad that into our State Programs come papers of diversified interests that arouse analytical and constructive criticism in the way of discussion. Too much is it true that we sit—and listen (?) and mostly all of us accept "as is" the paper in toto. That may be one of the leading reasons why we as a class adopt many things for dental use that have not been tested sufficiently.

The paper which this article discusses was that of Dr. C. W. Peterson of Moline, who broadly and splendidly gave his impressions of the "pink materials" and vulcanite. We are so easily led by the promises and enthusiasms of manufacturers in their presentation of new things, and urged on by our desire to be in the van, we often rush in "where angels fear to tread." The first part of the quotation is omitted for fear of incriminating ourself. The discussion which follows was given this month at the Davenport District Dental Society, where Dr. Peterson's paper was re-read.

This splendid exposition of a growing suspicion is by Robert C. Brown of Davenport, Iowa, a dental technician who in this paper keeps well within his rights, and perforce is obliged to give commercial names for the sake of clarification. It might be said here that this Journal invites prosthodontic discussions from those who are so closely allied to the profession, for we desire to be helpful as well as didactic.

Read Dr. Peterson's article and then follow up with this one.

IN HIS very excellent paper, Dr. Peterson has stressed the troubles he has experienced with some of the newer denture plastics. If he will multiply his own troubles by the number of dentists a dental laboratory works for, you would have a fuller appreciation of the trials that have beset the dental laboratory during the past few years. I mention this neither as a boast or as a complaint, but to emphasize the great interest the dental laboratory has in the subject of "Base Plate Materials," and the pleasure it affords me to discuss Dr. Peterson's paper.

There is no need for me to discuss that portion of Dr. Peterson's paper dealing with rubber. He has clearly stated the known qualities, and in addition has brought out its lack of sanitary value in a way that is not generally known. He has specially emphasized the tendency for vulcanite dentures to absorb fats. In that connection, I wonder how many dentists are aware that the cleanest possible vulcanite denture be-

comes covered with a disagreeable slimy film of grease after the wearer eats bacon; and that such grease can only be removed by scrubbing with a stiff brush, using hot water and soap? That fastidious persons who give such dentures the best care, complain of a nauseating odor that is noticeable for the fraction of a second when the denture is held under the nose, upon removing it from the mouth? Considering its many weaknesses, it is quite apparent that the vulcanite denture has been popular only because of the lack of a practical substitute, within the means of the average patient.

Pyroxylin, strictly speaking, is nothing more nor less than common guncotton, or plain tissue paper, such as is produced by nitrating cotton, or cellulose. In itself pyroxylin cannot be used for dentures, as it is lacking in strength. For denture purposes, and for industry and the arts wherever strength is needed, camphor is added as a hardening agent. Correctly then, the so-called pyroxylin products used for dentures, are combinations of nitro-cellulose and camphor. In both the chemical and industrial fields, all such materials are known by the single name "Cellulose."

It is well known that the best thermal insulating medium is one which consists of many closed or dead air spaces. The broken down fibre of cotton which is used in the cellulose, is composed entirely of hollow oblong cells. Because of this cellular construction the material is not a good conductor of thermal changes, but on the contrary is one of the best insulating mediums known to science. For the same reason, cellulose plastics are lacking in hardness, and in that respect are at the very bottom of the list, as related to all other hardened plastics. But cellulose does possess an unusual degree of toughness, not exactly like that of whalebone, but more nearly like that of rubber given a seventy per cent cure. Toughness in any plastic is only had in proportion to the compressibility, or bendability of the material. The hollow alpha cotton cells of cellulose provide rare compressibility, while the oblong shape of the cells, and their spacing, produces unusual bending qualities. It should be pointed out that both chemically and in physical structure, there is little essential difference between the cellulose used in dentures, and the spruce wood pulp from which this paper is made.

Considering the physical structure of the cellulose materials used for dentures, it becomes immediately apparent that the material is subject to very definite limitations. This is borne out in the industrial field, where regardless of its low cost and ease of moulding, cellulose is limited to those items where long lasting quality or stability are not required. Instead we see cellulose used only in the novelty field—combs, toilet sets, and similar articles. It should be mentioned of course, that moving picture films are made of cellulose, because it is the only plastic suitable for the purpose.

The sour odor of cellulose dentures mentioned by Dr. Peterson is due to the porous nature of the material, and its tendency to absorb moisture. Whether the denture is pressed in water, steam, oil, or in dry heat, has no effect on this property. The very heat required to press a cellulose denture, causes a considerable expansion of the cells, and and when the pressing operation is completed, regardless of the method employed, the microscope shows a sponge-like porosity that cannot be eliminated. The power of the cells to expand is best explained by the tremendous explosive possibilities of the product, as in gun cotton.

When immersed in water at room temperature, the cellulose denture materials now available, and regardless of technic, will absorb ten per cent of their weight in water within thirty days. When so immersed, there is a gradual loss of camphor, the denture losing ten per cent of its weight in one year.

While rubber or vulcanite can become stained slightly on the surface, cellulose materials carry stains throughout the body of the material, for reasons already mentioned. And for those same reasons, cellulose dentures are not nearly so sanitary as those of vulcanite.

When thermo-plastics such as cellulose are formed, the temperature causes the cells to expand. Upon cooling, the cells close or shrink, causing a shrinkage that will vary from six to as high as ten per cent, depending upon the camphor content—the more camphor the less the shrinkage. This shrinking causes the denture to warp—to warp when it is removed from the flask, before it is polished. But the cells do not remain stable when the denture is finished; they continue to expand and contract, as the denture is made hot or cold, is moist or dry. That is the reason a good fitting cellulose denture can become a bad misfit over-night, when the patient leaves it out of the mouth and exposed to dry air. While rubbers now used for dentures have a curing shrinkage of about three per cent, such can be allowed for, in advance, and reasonably good fitting dentures assured. But there is no way to provide against the continued shrinkage of cellulose, or the variable changes that occur with moisture and temperature variations.

Based upon these known physical properties of cellulose, it seems to offer no advantages for dentures except an original color—I say original color, for celluloid also ages and it also stains—and of course the toughness value which is paramount in the eyes of some dentists and patients. But from the standpoint of sanitary value and permanency of form or fit, it is not to be compared with vulcanite.

It is true that vulcanite ages, tending to become dead and brittle, especially where the rubber content is lowered, and large amounts of filler or colors are used. But vulcanite does not shrink, following its cure, except for the curing shrinkage already mentioned. The loose union between the vulcanite and a metal base which is often seen, is caused by wear and abrasion, and chiefly, the toughness of the rubber which causes it to move away from the metal, as a result of the stresses of mastication. The cellulose materials do not maintain as good a union with metal as in the case of vulcanite, for reasons already explained. Because of the number of failures resulting from the cellulose shrinking from the metal, the average laboratory does not recommend such construction, and when it is used, extra loops and spurs are employed to obtain best results.

As Dr. Peterson has so aptly explained, there are only three plastics known to science, rubber, cellulose and synthetic resins. Both rubber and cellulose have been used for over half a century, both in denture work and for industrial purposes. Yet, the synthetic resins have displaced both rubber and the cellulose materials in the commercial and industrial world, wherever quality is desired. And this has been done within the past twenty years. And inasmuch as quality is of greater importance in denture work than in most industrial articles, it is reasonable to suppose that the synthetic resins will replace rubber and celluloid for denture purposes.

It should be pointed out that the name "synthetic resin" as given to certain condensation products was a bit unfortunate, in that it is hardly descriptive of the material, and secondly, it is also misleading. Synthetic resin is produced by cooking certain reacting chemical combinations, which combine to form a thick syrupy mass. In its soft semi-fluid or plastic state, such materials can be thinned with alcohol, and have many of the properties of natural rosin. But when subjected to further heat, and when pressed in suitable moulds, such materials form the hard, strong, wear resisting articles such as door-knobs, ash trays, cigarette cases, clock cases, radio dials, toilet seats, distributor housing,

mammoth grinding wheels, and for countless other purposes.

While rubber and cellulose plastics are strictly limited within the physical properties of the base material as made by nature, the chemist on the other hand can draw a great variety of materials from nature, compounding them as he sees fit, to produce those things that nature has not prepared for us. In that way the chemistry of synthetic resins is still in its infancy, and the possibilities are almost without limit. It has taken nature thousands of years to produce the amber found under the cold waters of the Baltic, but the chemist, using the materials at hand as provided by nature, makes artificial amber in a few minutes —an amber far better than the natural product.

Dr. Peterson has mentioned the weakness of the phenolic type of resin, as used in Coedal, Iteco, Porcelite, etc. Considering the fact that phenolic resins have displaced vulcanite because they are stronger, it is hard to understand the weakness of the phenolic materials used for dentures. The explanation is that for commercial use, phenolic resins are compounded with wood flour fillers, the use of which is not possible where translucent natural pink colors are desired. Still another weakness of phenolic resins for dentures has been the short color life, which on the average lasts only a year and a half, and often much less.

Dr. Peterson dismisses the phenolic resins from consideration, because of the troubles he has had with phenolic resin dentures. Yet it is quite possible that the great majority of future dentures will be of phenolic resin. Bakelite Research Laboratories have made phenolic resin dentures, as early as 1913, and have made considerable progress in the development of phenolic resins for dentures. In fact, a phenolic resin material, made and sponsored by Bakelite, and to be called Luxene, will be introduced in the course of a few months. Dr. Peterson was correct in his estimation of the value of phenolic denture materials used in the past; for while Bakelite had phenolic resins superior to those that have been used for dentures, Bakelite did not believe they were strong enough. The material Luxene has approximately four hundred per cent greater shattering and transverse strength as compared with Porcelite. Ultra violet tests shows Luxene to have approximately five times the color life of other phenolic resins used for dentures.

It should also be remembered that the dental field is not large enough to warrant the research expense that is ordinarily involved in developing resins for specific purposes. The improvements affected in Luxene are as a result of research in phenolic resins for other purposes. Because of the large staff of chemists continually employed in research at Bakelite Laboratories, no one can tell what the future may offer. But if the present rate of progress is maintained, the day is not far distant when phenolic resin dentures of high quality will be as common as the vulcanite denture of today.

We are compelled to differ with your essayist when he states that the phenolic resins have all the physical characteristics of the pyroxylin or cellulose materials. While cellulose is quite insanitary for dentures, phenolic resins have the sanitary value of glass. Cellulose materials are the thermo-plastics, and as such are unstable and continually change their form, while phenolic resins are thermo-set materials and the form becomes stable and inert after the cure. While cellulose is porous, a poor conductor of thermal changes, absorbing fluids and staining, phenolic resins are non-porous, and compared to cellulose, are good thermal conductors, and do not absorb moisture or stain.

Dr. Peterson has mentioned how the grease from vulcanite deitures combines with hot lye water to form soft soap. The same is true of all the cellulose materials. Here again, the phenolic resins

differ. Porcelite dentures that have been worn for five years may have turned brown or dark red in color, but they still maintain the same glazed surface and the same sanitary properties.

While the glycerol type resin has probably given me more hours of misery than all other denture materials combined, still I am glad to hear Dr. Peterson's hopeful comment on them. When fully and properly cured, the glycerol resin, sold as Glycene for dentures, does possess all the properties that Dr. Peterson hopes for. When not fully cured, the resin contains a sufficiency of free glycerine, to take up moisture, which in turn causes the resin to become soft and cheese like. It would take a lengthy paper in itself to tell you of the many varied problems that stood in the way of the successful use of Glycene for dentures.

The union between the Glycene and the teeth is so strong, that the almost imperceptible shrinkage following the cure, has caused the teeth to crack. This has been remedied through stronger or special posterior teeth, by technical means, and by an improvement effected in Glycene quite recently. At one time the Glycene dentures cracked badly in the flask, when properly cured. This was corrected by adding a ceramic filler to the resin, and by annealing the material immediately following the cure, and before removing the denture from the flask. At one time it was imossible to hold occlusion within any reasonable mounds. This condition has been gradually corrected through improved packing methods, and by increased softness or plasticity of the Glycene. The Glycene has been considerably improved of late, and it is hoped by Bakelite Laboratories to release the improved Glycene about October 15th, 1932. The improved material can be packed and the denture molded with far less pressure than has been required, and it is believed there will be little trouble from lost occlusion. The Glycene we have been using comes from the flask with a yellowish skin, which is sometimes difficult to remove from between the teeth. This trouble has been eliminated in the improved Glycene.

Dr. Peterson has explained how Glycene dentures immersed in water for forty-eight hours, and boiled for sixteen hours, had absorbed only one per cent of water, and without any increase in absorption with seven hours additional boiling. You will agree such a test is severe to say the least. Yet, I send a Glycene denture to Bakelite Research Laboratories once each month for testing, and among other things, such dentures are boiled continuously for three hundred hours. A Glycene denture that does not hold up for the three hundred hours of boiling, is considered unfit by Bakelite.

Frankly, we have had some difficulty in properly curing Glycene. While we installed the best available equipment, it was found insufficiently accurate for the purpose. Later a special forced draught oven was designed for the work, and the temperature control is now as positive as in the use of your vulcanizer. Because of troubles already mentioned, we were not able to cure Glycene as much as we desired. But as improvements were effected, the cure was lengthened. A year ago, we could not cure for more than forty hours. Today the standard cure is sixty hours, and some cases are cured for as long as seventy hours and even longer. Through the co-operation of Bakelite Research Laboratories, who test one denture for us every month, we maintain a continual scientific check on the value of the cured Glycene dentures.

There is little to add to what Dr. Peterson has said with reference to the Glycene denture. Glycene dentures have all needed strength, can be repaired or added to with little or no change of color or texture; the color does not fade in or out of the mouth; being non-porous Glycene will neither stain or warp, and

is absolutely sanitary; while not a thermal conductor like metal, Glycene is neither an insulator like rubber and cellulose. All of these qualities can be modified when the cure is imperfect. It is my opinion, based upon considerable experience, as well as reports from Bakelite Laboratories, that we are now able to cure each Glycene denture as perfectly and accurately as in the cure of dental rubber.

Because of the expensive equipment, and lengthy technic, it appears that Glycene is more adapted for use in the dental laboratory, than in the dentists' private laboratory, at least for the present. I understand that smaller and less expensive Glycene outfits will be provided for use in the private or small laboratory.

In conclusion, I believe that the cellulose materials are on the way out of dentistry, because truth will come out and truth will prevail, and more dentists are learning almost daily about the actual properties of cellulose. The relatively high cost of Glycene dentures will restrict their use, but they should come into greater favor as the dental profession learns more about the material. The improvement in phenolic resins as shown in Luxene, should cause that material to replace cellulose and rubber to a considerable extent, for Luxene dentures can be produced quickly and at medium cost.

DR. THOMAS L. GILMER*

WITHIN the brief period of six months I have lost the affection, interest and counsel of the two men who have influenced me the most, my father and Dr. Gilmer. Both were from the same rugged, pioneer American stock, both were just a little past eighty, both were disciples of Aesculapius for more than a half century and both were spared the tragedy of a long-drawn out, heartbreaking illness. As many of you know Dr. Gilmer, in the last week of his life, was a guest and spoke at a dinner for President and Mrs. Scott in Phoenix, Arizona. The next day he hurried on by airplane to overtake a family party en route for a Christmas party at Los Angeles where he passed away.

As the most recent and therefore perhaps the least deserving of the group who are proud to call themselves Gilmer men I covet this high privilege. I know of no greater distinction than to be counted worthy of admission by our preceptor himself to this list of distinguished colleagues. The time at my disposal is both too long and too short to do justice to the life and activity of this great man. Too long because the eloquence of his deeds surpasses that of even the most accomplished orator; too short because the bare, encyclopedic recital of the important events of his career cannot be compressed into the alloted time.

Born in Missouri, Lincoln County, educated in the schools of that neighborhood and graduated from the Missouri Dental College in 1881. The bare recital of these facts means nothing, but the implication is far-reaching. St. Louis had been the capital of the energetic Clark, a great river port and the center most concerned in the development of Louisiana Territory and the attendant fur trade. In this thriving metropolis

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it was but natural that capable and energetic professional men with wide vision should congregate and that ambitious, highly talented students should seek training in such an environment. Out of this play of forces grew the Missouri Dental College and the exceptional faculty that trained and inspired the young men that came there for an education. In this light it is no mystery and quite easy to understand that such surroundings should produce a G. V. Black, a Gilmer and a Prothero.

To me Dr. Gilmer was not merely a great man and a great character but a study in contrasts, and each one of each pair of characteristics served but to magnify the other. He was most modest and critical of his own accomplishments and yet he had a simple faith and a rare confidence in his own ability to find the correct solution to the problem that confronted him and an unremitting zeal in attacking it.

He was the kindest and gentlest of men and yet as an operator, at times and when compelled by necessity, stark and ruthless in the methods that he used. These attributes were carried not only into the operating room and clinic but also to outside affairs. He could praise and blame in one sentence. Patients brought to his clinic sensed only the former and left with restored and continued confidence in the one who brought them there. The latter without humiliation was brought to a realization of the error of his ways, confident that he was the only one in the audience who sensed the implied criticism.

Like most of the men of his generation in this western country during its period of development, he was ingenious and resourceful and inclined to methods and instruments that were simple and uncomplicated, on the other hand he was always among the first to adopt new methods and new ideas, such as the X-ray and focal infection.

Conscientiously and whole heartedly devoted to the practice of his profession, yet he found time and inclination to play and a robust, healthy enjoyment of recreation and the pursuit of hobbies. Boating, travel, automobiling and picture making at one time or another supplied the material for this phase of his life.

He had a deep and permanent interest in the societies and affairs of his profession, but his activities were rather definitely circumscribed and localized. His attendance at the meetings of the Illinois Dental Society is almost unique. He was one of the founders of the Institute of Medicine of Chicago and was one of the first presidents of that organization, one of the great honors at the disposal of the medical profession of Chicago. He was a recipient of the Jarvie medal.

His three most noteworthy achievements, I am sure, are the development of the wiring method for the treatment of jaw fractures; the identification, first description and establishment of a successful treatment for acute ulcerous gingivitis (trench mouth, Vincent's stomatitis); and the founding of Northwestern University Dental School. Any one of the three by itself is sufficient to establish his reputation on a lasting foundation.

The first presented a problem that was largely anatomical and mechanical and its solution occurred relatively early

in his career. Without precedent and precept to guide him he arrived at a method that has been universally accepted.

The second concerned the diagnosis and treatment of an unknown disease entity. It is a splendid illustration of his keenness of analysis and of his almost instinctive diagnostic sense.

He was a successful practitioner in his field, an activity that is usually sufficient to preempt fully a man's time and interest, but he was no less successful as a teacher and as a developer of men. He never succumbed to the temptation to prostitute either to purely mercenary purposes, and to this end was led to urge the founding of a training school for dentists based on these principles, his third great achievement and the beginning of our school.

He had a gift for making friends and a loyalty and faithfulness in friendship that was one of the outstanding characteristics of his life. He was especially interested in the problems and prospects of young men and devoted himself earnestly to making them useful members of their profession and of society in general.

He never sought mediocrity; in the choice of friends, in the practice of his profession and his services to the sick and to those in trouble. He gave his best to all that came to him without thought for reward or remuneration.

RESTORING FACIAL LINES FROM RECORDS

How much happier patients would be, and how much easier the dentist's problem of restoration of facial personality, if records had been made previous to the removal of their natural teeth.

Certainly, records are of inestimable value to the person who has pride in his personal appearance, and they are of inestimable value to the dentist who appreciates his responsibility to his clientele.

One must not assume, however, that these records are to be used from year to year, constructing or reconstructing the artificial substitutes to conform exactly to the record. As the years roll by, there are definite and visible changes that take place in the whole physical being. The hair turns gray, the eyes lose their luster and their color fades; the complexion becomes sallow or cloudy. So, too, the teeth show the marks of age. Their color deepens, and the ravages of time, disease, and decay leave their marks. Senile recession takes place; restorations make their appearance as repairs become necessary, and the teeth become abraded from usage.

Think what this means to the person who becomes a denture patient early in life. How will his dentures harmonize in age-appearance, when he is sixty or seventy?

The artist paints a picture, or the sculptor creates a masterpiece; and they remain unchanged for all time, as young or as old; no younger, no older. Our art must actually become a part of the human anatomy, and by all the laws of nature and harmony, must age along with the physical being. This necessitates the designing of new dentures at intervals, developing to the best of our knowledge the changes that might have occurred in that individual's natural teeth during the intervening period. *—Abstract from paper read by B. L. Hooper before Texas State Dental Society, 1932.*

Any girl who collects antique horsehair chairs can tell you that it's no wonder her grandmother wore six petticoats.—*Jackson News.*

• EDITORIAL •

G. WALTER DITTMAR, PRESIDENT

The backward glance into a life of a man who has reached a high place of trust and confidence among his peers, is glamourous with romance, of a type that is also inspirational. We do not hesitate to use this word romance, for to us it treats of a form of adventure, a building up and overcoming obstacles in earlier days which were drab indeed.

It is very much like one taking a long mountain climb: starting in the darkening valley, step by step, over jagged stones, up and up, with only a glance now and then to the foot hills and a determined look of defiance to the top. So came this man who once gaining a friendship retains it.

It seems the farm so often is the cradle of good and strong citizenship. From its loins we can trace the foundational strength of our country, and, thank God, our Republic, battered though it sometimes appears.

Starting life April 1, 1872, the subject of this sketch was, five years later, made vastly poorer than the hills of the old farm home in Jo Daviess County, Illinois, by the death of his mother. We who have had a glimpse of heaven through the long and loving association of a mother, sense his loss.

But "poor folks" must toil notwithstanding, and the farm must give forth its bounty. So Walter Dittmar grew and worked on the farm, attended the district school four or five months in the winter until eighteen years of age, when a tubercular tendency developed and he went to California. There he improved rapidly. Later he went to Oregon where with farm work in the summer, and college in the winter, he prepared himself to be a teacher, which profession he followed in the west and later in the county in which he lived as a boy. With the complete return of health he became as the one climbing the high mountain, ambition and determination leading him on.

In 1895 he entered the Northwestern University Dental School, then located at 23rd and Dearborn Streets, Chicago, from which three years later he graduated, and opened an office for a short time in Apple River, Illinois. From this time dates his professional life with its series of advances. Five months after his graduation he was called back to Chicago to become a teacher and Superintendent of the Infirmary of the Illinois School of Dentistry, which is now part of the University of Illinois, and on whose faculty he has given of his time and wisdom for thirty-five years: fifteen years Associate Professor in Operative Dentistry, and the past twenty years, head of the Prosthetic Department.

In 1899 he joined the original Chicago Dental Society, the State Society, and the first Odontographic Society. In 1900 he went to Paris to the International Dental Congress as a delegate from the Illinois Dental Society. His

activities in all departments of dentistry, State and National, his offerings of papers and clinics have placed him in an enviable position.

Past President of the Chicago Dental Society, the Odontological Society, the Illinois Dental Society, treasurer of the Odontographic Society for many years, member of Delta Sigma Delta Fraternity, and lately its Supreme Worthy Master, Omicron-Kappa-Upsilon a honorary Dental Fraternity, and a Fellow of the American College of Dentists, are now followed by his supreme elevation in our profession to President of the American Dental Association. There is little left to which to aspire. Is it just a co-incidence, that out of this humble beginning in life has arisen one who just naturally fell into pleasant places? No, it is a state of mind engendered way back in the years, when the rough soil tested the growing boy's determination, and from it he rose triumphant. It was not luck, it was pluck.

We, proud of our Illinois President, give him the assurance of our loyalty in the trying year ahead. We know some of the difficulties, and we also know the indomitable will that is back of the determination to do all he can to weld the A. D. A. into a mighty bulwark for the preservation of our profession.

No man can have a stunted nature nor a selfish outlook on life, who generously gives voice to the following which is part of a personal letter to this writer: "What little success in life I may have made up to now, I attribute to the fine influence and inspiration of my father, my teachers, my loving wife, my colleagues and my dear friends in our profession. I feel that I never did, and do not now deserve the many honors which have been conferred upon me. My hope is that I may be able to lend my best influence toward the advancement of our profession, and in a small way at least, carry on and project the fine influences, which came from those who helped me, to the younger men who will follow."

We leave the future of organized Dentistry in your hands, knowing the heart will direct the mind. All hail! and good fortune await you.

WHAT WILL THE HARVEST BE?

The following article was taken from a recent issue of a Chicago paper:

MEDICAL ADS FOR EDUCATION HELD ETHICAL

Use of paid advertising by the medical profession was approved yesterday by the Council of the Illinois State Medical Society, which adopted unanimously the report of a special committee appointed to investigate the subject.

Advertising, when done by medical societies for the education of the public, the report holds, is perfectly ethical and highly desirable.

The committee made clear that it does not favor the use of advertising by individual physicians or by small groups of physicians, but does favor its use by the larger groups—especially county societies.

Members of the committee were Dr. James Hutton and Dr. Thomas P. Foley of Chicago and Dr. Edward H. Weld of Rockford. They

reached their conclusion after a series of conferences with newspaper publishers, advertising and business managers and heads of national advertising agencies.

There seem to be some inconsistencies in this report in as much as the Society condones its own actions as to paid advertising but condemns the same in the individual physician, or small group. Very much is this like the father who takes upon himself the prerogative of the cup that cheers (?) and the sublimated pleasure of a "rounder" but promises to thrash the "hide" off his son if *he* participates in similar liberties. In other words "Dad" will commit all the sins for the entire family—generous soul!

In all this emphasis about educating the public there is an ugly little worm gnawing. It may be possible it has a focal infection somewhere in its sinuous body; most everything else nowadays has. Would it not be quite the thing to educate the worm? Sometimes it appears the public is more than tired of education along its own physical economy, for so often does it seem this publicly expressed desire is like the much used sticky flypaper—the dear little flies can find therein rest for their weary feet or possibly a wing.

Times are awry. We are losing our standards of ethical conduct as professional men or those standards are incompatible with present day conditions. We are fully aware that the use of the public press to present claims of different kinds, and as we look at it, false claims, in the professions, is given over to the ethical dissenters, and the people at large accept those statements at face value. Therein lies one form of education.

The Medical Societies and Dental as well, sensing the danger of such education "view with alarm" the broadening of a propaganda that eventually will find most people informed along wrong channels. And when the organized professions, and by organized is meant, FOR SERVICE HONEST AND TRUE, AND NOT FOR SLAUGHTER, come before the public with counter-claims the greatest argument expressed or implied and accepted by the lay people will be wrapped up in the one idea of "dog eat dog," and the bone of contention will be that of money differences. People are looking for bargains in health as in other things and will "shop" until they think they have found them. Unkind as it may seem to say it, the fact remains, some justification is extant for this idea by reason of the wide difference of fees for quite similar procedures.

It is difficult for the ones seeking service to appease the WHY, that involuntarily arises in their minds as to this condition. To the ones burdened with an overabundance of wealth, the daily press will never be consulted as to a health course.

The so-called common people must be reached and the question has yet to be answered as to what constitutes legitimate, fundamental information through public channels, or the channels themselves. It has been said and with truth the public has the tendency to read articles in the daily press in which the diseases of the heart, lungs, kidneys or any other organ of the body are explained with more or

less aptness. But when it comes to reading articles concerning the teeth it becomes something of a drain on their time.

There are debatable points on both sides, and we would like to sound the warning to make haste slowly in our profession in departing from well established rules of professional conduct. One false move in this direction of paid publicity advertising will throw open the flood-gates and the damage will be irreparable.

It is to be noticed in this inserted article that in connection with the principle of implied "I can, but you dare not" is the further statement that newspapers and advertising agencies were consulted in order to arrive at the final conclusion. We fail to note contact with the higher medical minds.

Without a doubt this decision of the Council of the Illinois State Medical Society will arouse much discussion in all branches of the healing art, for "As goes Maine so goes the country."

BOOTLEG DENTISTS

From the Bulletin of the Second District Dental Society of N. Y.

During time of economic distress in cities there crop up charlatans and quacks of all kinds to prey on the health and comfort of our citizens. These illegal practitioners are quick to sense the economy psychology of the citizen and appeal to his bargain-hunting sense by offering medicines, dentures, and treatments for small fees. Barnum's old expression "a sucker born every minute" is well taken when people succumb to these medical and dental quacks.

There exists in Greater New York men and women whom we will term "Bootleg Dentists," for they truly bootleg dentistry in their house to house canvass of people in need of dental treatment, particularly those needing prosthetic work.

Impressions and mush bites are taken, the quack leaves and in 48 hours returns with the finished cases, inserts them, collects the fee and is gone never to be seen by the patient again; for it must always be a cash transaction. Misfits, sore mouths, severe pain, and dangerous tissue pathology may result. These quacks even go so far as to advertise in our newspapers in a subtle way, soliciting trade. They usually state they are trained dental mechanics and can tighten loose plates, etc.

We as members of a dental society are dental guardians of citizens and should investigate all reports and suspicions of illegal practice for the protection of ourselves, the public, and the profession. The public looks to us for protection from quacks therefore we must be ever alert to this menace.

The Society looks to its members for reports on any irregular dental activities that may come to their attention; these should be reported to the Committee on Ethics, *and then do something besides talk. Parrots and macaws should remain in the trees. What is needed is definite, unceasing action by all societies.* The italics are those of the ILLINOIS DENTAL JOURNAL Editor.

THINK THIS OVER

You are as young as you possess the spring and elasticity of body and mind which makes it possible for you to adapt yourself to changing conditions. Intellectually, you are youthful as long as you are able to keep pace with your times. Old age comes on when you lapse into the solid mold of days that have passed.

If you want to keep your mind from becoming sluggish, you must rely on constant study. If you want to satisfy your desire to know things, to keep mentally young, you must read the things that make you think.—Exchange.

In Memoriam

"Life's race well run,
Life's work well done
Life's crown well won
Now comes rest."

DR. CLARENCE C. CORBETT

Dr. Clarence C. Corbett passed away at his home in Edwardsville, Illinois, September 24, 1932 at 5:30 A. M. after a very short illness from heart complications. Born at Guilford, Vermont, August 25, 1859, he had attained the age of 73 years and 29 days.

At the age of nineteen, he entered the Ohio College of Dental Surgery in Cincinnati and was graduated from there in 1881.

After a very brief stay in Kansas City, Missouri Dr. Corbett located in Edwardsville, Illinois and here rounded out fifty years of faithful and devoted service to the community.

In his early career, he gave much promise of ability and advanced rapidly in his profession. He built up a large and enviable practice. At the time of his death he was looked upon as dean among dentists in Southern Illinois and an outstanding figure in the profession he loved so well. Dr. Corbett, throughout his entire life, manifested much interest in his state and local societies and always contributed liberally of his time and talents. He joined the State Society, 1892, became a life member 1917 and served as President in 1912 with much credit to the Society. During his forty years of membership he was absent from only five annual meetings.

It was the writers privilege, not only to have known Dr. Corbett, but to have been intimately associated with him for thirty-four years professionally and as a friend. The most fitting tribute I can pay him is to say that his going has made an irreparable loss in the community and has bereft his family, his friends and his profession of an ennobling influence for the best in life. He was possessed of a very high moral and religious sense of duty. Well might his Pastor use as his funeral text, Second Samuel—18-27: "He is a good man."

Surviving are his widow, Mrs. Mary G. Corbett, one son, Clifton S. Corbett, and three grandsons, who mourn the loss of a most gracious and lovable husband, father and grandfather.

E. L. Burroughs.

Following are the professional activities in which he participated:

Dr. C. C. Corbett, Edwardsville, Illinois. Graduated from Ohio College of Dental Surgery—1881.

Dr. C. C. Corbett

Joined State Society—1892. Became Life Member—1917.

1900—Board of Examiners.

1904—Vice-President.

1906—Executive Council, Committee on Infraction of Code of Ethics.

1910—Vice-President.
1911—Program Committee.
1912—President.
Papers: 1907—"The Advantages of Cement as a Cavity Lining." 1912—President's Address.
Discussions—1901-1912.
Clinics: 1895, 1897, 1898, 1901, 1908, 1909, 1910, 1914.
Dr. Corbett attended every annual meeting since 1892, excepting 1893, 1913, 1918, 1921 and 1932.

CALCIUM AND THE TEETH*

By EDWARD PODOLSKY, M. D., *Brooklyn, N. Y.*

TEETH occupy a special position among bony organs. They alone are in direct contact with the exterior world and with foreign bodies and require a great amount of daily care. While dental decay admittedly has an infectious origin and occurs in 95 per cent of civilized people, the rate of speed with which it progresses varies, evidently according to the degree of predisposition existing in different people. It is therefore believed today that a special protective mechanism exists in some people which probably depends upon general body health. In this connection a well-balanced diet rich in mineral elements is undoubtedly a cardinal factor.

Of all the theories that have been advanced regarding the cause of dental caries, Bödecker (Dental Cosmos, May 15, 1929, p. 586) seems to have offered the most plausible during recent years. He believes that dental decay has for its exciting cause the decomposition of carbohydrate food in the presence of bacteria, with consequent formation of an acid. One of the predisposing causes is probably to be sought in the abnormal condition of the dental lymph, which is derived from the blood plasma. If the mineral content of the blood plasma is decreased through systemic illness or through a deficiency of calcium in the diet, it causes a corresponding change in the character of the dental lymph and therefore an insufficient neutralization of the acids present on the surface of the teeth, resulting in dental caries. Thus a close relationship between the enamel and dentin of the teeth and general health is established. It seems, therefore, that for preventing dental caries and to favor the proper development of teeth, it is of paramount importance to keep the dental lymph supplied with sufficient mineral salts. This of course can be accomplished by the proper diet, but in certain conditions it is advantageous to add a suitable form of calcium to the diet.

In the past twenty years the attention of physicians has been attracted more and more to the importance of good teeth and also to the importance of having in the food a sufficient supply of calcium for the teeth. Calcium plays an essential part in the development of bones and teeth. So essential is it to life that the fetus appropriates the necessary calcium from the maternal body, even if the mother herself is in a condition of negative calcium balance. Sherman has

*Reprinted from the Dental Cosmos for August, 1932.

made a study of American dietaries and found that they contain much less than the optimum amount of calcium, which he says is 0.67 gm. per day for an adult. He states also that 0.45 gm. per day is the strict minimum on which a balance can be maintained. As far as calcium-rich foods are concerned, the best source is milk, but milk becomes irksome when it must be taken in large amounts and continuously. McCollum insists that the growing child have at least one quart of milk per day and states that the balance of calcium is much better maintained if this quantity be taken. Calcium is also found in green vegetables, especially spinach, but calcium-rich foods are not numerous.

The absorption and utilization of calcium is directly related with several vitamins. Sherman, speaking on the interrelationships of nutritional factors, says that probably each of the vitamins, A, C and especially D, bears an important relation to the metabolism of calcium and phosphorus.

Undoubtedly, vitamin D plays a significant part in promoting the orderly development of the bones and teeth, but the evidence is conflicting as to how far it is a calcium conserving, and how far it is a calcium and phosphorus mobilizing factor. In the enthusiasm of the past few years for the newly discovered vitamin D, there probably has been a tendency to expect too much of vitamin D, which is not a substitute for calcium. Ingestion of vitamin D is in no way a panacea for the problems of the calcium requirement and, while it influences the intermediary metabolism of calcium, the supply of the body's quantitative needs depends primarily on the calcium content of the intake.

As already stated, the best source of calcium is milk. But it takes large amounts of milk to supply the necessary calcium, especially when the patient has been for some time in a state of negative calcium balance. All patients cannot stand large quantities of milk, or a distaste for large quantities may develop. In such instances, direct administration of calcium must supplement the food. There are several forms of calcium for internal administration — the chlorid, acetate and lactate; but one of the latest, and evidently the best, is the gluconate.† It is superior to other salts because it is palatable, well absorbed and free from drawbacks.

The calcium reserves of the body are stored in the bones and teeth. According to a most enlightening publication by Bauer, Aub and Albright (*Jour. of Experimental Medicine,* January 1, 1929, p. 145), the depletion of the calcium reserve in the bone trabeculae under the influence of the parathyroid hormone or a diet deficient in calcium and its refilling under calcium therapy have been strikingly illustrated. Much work is being done in an attempt to show that calcium is required and utilized not only during the formative processes of the teeth and bones, but even in mature age. It seems evident that dentin and enamel absorb and utilize calcium, and it is believed that the calcium in the saliva may be dialyzed through the enamel.

During pregnancy the demands of the

†Calglucon (Calcium Gluconate-Sandoz), accepted by the Council on Pharmacy and Chemistry of the Americal Medical Association and by the Council on Dental Therapeutics.

growing fetus cause an enormous drain of calcium, leading to increased tendency to caries in mothers. In the past this had been accepted as unavoidable. "A tooth for a child" was a popular saying, and it was admitted that a mother who had had many children ought not to have any teeth left. Today we know better, and understand how essential it is to supply enough calcium for the maintenance of the mother's teeth and for the normal development of the bones and dental structures of the growing fetus.

It is definitely established that a calcium deficiency during pregnancy results in a fundamental disturbance in the proper growth of the tooth germs in the fetus. Structural defects in deciduous teeth and in the first permanent molar due to an inadequate calcium supply during the intra-uterine life definitely predispose to caries. In the case of the bone framework of the body, defective development due to a calcium disturbance during the embryonic period may subsequently be completely overcome by means of proper supervision of the infant's diet, but structural abnormalities in the teeth occurring in the prenatal period remain in the milk teeth and in the first molar, and cannot be corrected. It is therefore quite obvious that a sufficient intake of calcium during pregnancy is indispensable for the conservation of the teeth of the mother and for the proper development of healthy teeth in the infant. This can be accomplished by recommending a well-balanced diet with liberal amounts of milk, green vegetables and fruits, and in addition instructing the patient to take calcium gluconate in doses of forty-five to sixty grains (three to four teaspoonfuls) daily, which will not only prevent the loss of teeth by the mother but will also insure healthy teeth for the infant. Calglucon may be prescribed in the form of powder or tablets (each containing 1.5 gm. or 22 gr.).

While pregnancy and lactation are probably the conditions in which the need for calcium has been most emphasized, there is no doubt but that a large proportion of dietaries, both in adults and in children, would be improved by an increased intake of calcium. There is not enough calcium in the ordinary American diet. This state of affairs is probably in a great measure responsible for the large amount of dental caries with which the dentist comes in contact. The fact that country people, despite the lack of care of their teeth, have often splendid teeth, far better than those of city people, is perhaps partly due to a more liberal consumption of milk, vegetables and fruits, and less acid foods, such as meats.

During the period of growth, calcium is particularly required in adequate amounts not only for the development of bones and teeth, but also for the prevention of caries and periodontoclasia. In this connection, Adrion (*Deutsche Zahnaertzliche Wochenschrift,* No. 18, 1930) has shown that a diet deficient in vitamin D and calcium brings about a reduction of about 25 per cent in the weight of the lower jaw, while its dimensions in length and width are reduced from 7 per cent to 9 per cent. He claims to have shown such definitely measurable influence of calcium and cod-liver oil on jaw bones as well as on the dentin and enamel.

In other patients who have dental caries due to some constitutional disease, such as tuberculosis, osteomalacia, rickets, etc., the dental practitioner will accomplish much through the proper diet and calcium medication in preventing loss of teeth. Franken (*Journal A. D. A.*, January, 1931) has called attention to the condition he names, sensitive cervices of teeth in adults. He had found that calcium gluconate in conjunction with the proper diet is of great service in alleviating this bugbear of dental practice.

A historical detail may be of interest to dentists in relation to the calcium question. The first to recommend calcium (it was in tuberculosis) was Ferrier, a French dentist. He was not much listened to at the time, but he held firm, and to him duly belongs the credit.

Calciprivia is responsible for most of the external anomalies of the teeth and maxillae, for slow dentition in infants, for the defective growth and structure of the teeth in children and for the dental caries and sensitive cervices in adults. One of the best ways to insure an adequate calcium intake is to add a suitable form of calcium to the diet. Prophylaxis is better than treatment.

7119 Nineteenth Ave.

YALE RADIOGRAPHS ALL STUDENTS OF ENTERING CLASSES

For the first time in the educational history of this country, a policy of x-raying the lungs of all members of the entering classes in all departments of a university has been adopted. This measure was put into practice by Yale University here as a further means of safeguarding the health of its students, the annual report of the Department of University Health states.

The x-ray films are made with a view of determining the presence of tuberculosis in any of its manifestations. All students whose chest radiographs show indications of trouble are to be carefully followed during their college courses and x-ray pictures of their chests will be made at least once a year.

"A certain number of them should be saved from a breakdown, and a single one so saved would justify the expense," the report stated.

X-ray studies were made last year of 1,602 new students. A total of 283 students, or 17.7 per cent of those examined, gave evidence of an amount of infection potentially dangerous but, in most cases, not destined to cause trouble.—*Science Service.*

IN ORDER TO KNOW—

The value of a dollar a man must really earn one.

The worth of a friend a man must fight some battle in loneliness.

The beauty of a home one must live in a boarding house.

The joy of success one must work to exhaustion.

The strength of faith one must face doubts unafraid.

The comradeship of truth one must be ready to forsake any falsehood.

The thrill of a vacation one must have a season of work.

IF YOU WOULD—

Live without fear, then live without compromise.

Live in freedom, then make no man or habit your master.

Live in peace, then don't fight battles that are not worth fighting.

Live in comfort, then spend only for the necessities.

Live in serenity, then offer your own conscience no offenses.

Live in hope, then avoid the company of the hopeless.

Live in happiness, then do not live unto yourself.—*Selected.*

NEVER WORRY ABOUT A THING THAT CAN'T HAPPEN

WM. BRADY, M. D.

One of the chief causes of the physic habit is the autointoxication obsession.

Autointoxication means poisoning of the body by its own excretions. It is a morbid, depressing theory based on total ignorance of physiology, pathology and hygiene. So far as the layman's experience or observation is concerned, autointoxication can't happen, and that's an assertion that defies contradiction.

Autointoxication may occur—we are not certain about this, but it is fair to assume that it may occur in the course of certain very grave illnesses. If or when it does develop as a result of such a grave or fatal illness, no cathartic, enema or other such measure can be of any avail. Radical surgical attack is usually the only remedy that can save the patient in such a plight.

I am perfectly conscious that some fine old physicians have stoutly espoused the notion of autointoxication, and that here and there a nice easy going old timer still prescribes remedies or treatments which purport to correct or overcome such self-poisoning. That does not in the least alter the fact that autointoxication can't happen except in the last few hours of some fatal illness and then it is only an effect of the illness.

Any victim of this morbid obsession who is sophisticated enough to discriminate between competent and incompetent teachers, between honest physicians and humbugs, between scientific health and advisers and faddists, can readily learn by keeping tabs on the ideas or teachings of these various individuals, that the autointoxication trick is used almost exclusively by the wrong 'uns. And the crookeder and shadier they are the more alarming and unpleasant the picture or suggestion of auto intoxication they offer the prospect they hope to sell the treatment.

It was a physician, Dr. Oliver Wendell Holmes, who said it would be better for the human race and worse for the fishes if all physic were consigned to the bottom of the sea. "Physic" as the poet used the term, means all medicines. Physics, as I use the term, means laxatives. I believe it would be a great boon for the health of the race if all physics, not only medicinal but these glorified enemas and colon filling stations, and imported bird seed and funny food and eke a lot of nice white mineral oil or paraffin were cast into the sea. Probably a good many victims of physic habit would suffer from headaches—anxiety headaches—for four or five days, but presently they'd cheer up and smile again when they found everything coming out all right.

Anxiety about any retardation or inadequacy of alimentary function is a common cause of headache, malaise and that dull, mean feeling which the credulous ones attribute to "autointoxication." Plenty of near-doctors or queer-doctors to cater to the obsession, too.

BREAD AND MILK HEALTHIEST FOODS IN DAILY MENU

As to the healthful food on the limited budget, two of the fundamentals of nutrition used by the more hardy and healthy people of the world for countless centuries have been bread and milk, reinforced by some meat once a day, eggs, butter, cereals and vegetables. This makes a sustaining and protective diet.

The ancients probably did not know that scientifically a more wholesome and more correct balance of body-building elements was present in those two foods than in any other simple diet combination they could have found; but they knew that on these foods their appetites were appeased and their bodies were sturdy and strong.

Now, however, our nutrition experts attest the scientific correctness of the bread and milk foundation for our food habits, especially in times of close financing.

In a study of foods that contribute most to the nation's health with the least strain on the family pocketbooks, first place in importance is given to bread and milk by the United States Bureau of Home Economics. Bread should be eaten by all members of the family at every meal, while milk should be available for all the

children, and if possible, for the grown-ups too.

Milk supplements the nutritive qualities of grain at more points than does any other food and does this effectively and at very small expense.

The forms of fat and sugar that are cheap sources of energy contribute relatively less to the diet as a whole than do the grain products, and the effect of increased amounts upon appetite and digestion is probably less favorable.—*Selected.*

AN ANCIENT FISH STORY WITH TEETH IN IT

This comes from Wyoming and dates back to a time when sharks "roamed the barren wastes" of water of what is now that popular western state.

Dr. C. C. Branson of Brown University, during a field trip searching for Paleontological specimens, came upon a fossil of shark, a species which the present day fish, as well as men, may be thankful has been long extinct.

He described the specimens as follows: "The teeth are narrow, slender, laterally compressed, and curved at the tip, which is triangular and bears shoulders like those of an arrowhead. Near the base of the front of the crown tip is a pair of blunt barbs, directed downward, and below these at regular intervals are similar barbs in rows extending diagonally backward across the lateral faces of the crown to the posterior face near the base, where there are numerous irregularly arranged barbs. It is apparent that here is a shark which literally stabbed its prey with its teeth in the same manner as an Indian uses a fish spear. The teeth have the appearance of a bakelite reproduction of a spear."

Editor's note: There can be no doubt whatever the minnows and other pan fish that are unfortunate enough to get tangled up with the vacationer's hook this summer will grow, by retelling, into monsters such as this. What chance does a poor little fish have in this wicked world so long as words and imagination connive to put it in the wrong classification?

ON SCIENCE FRONTIERS

By Gobind Behari Lal

Thanks to Dr. Voit's pigeon, man has learned a great lesson about his bones.

Some fifty years ago the German physiologist Voit fed a pigeon a very ascetic diet —simply washed wheat and distilled water.

The bird lived for some twelve months and appeared perfectly healthy. Then it broke a wing and was killed, in order that its body might be thoroughly examined inside.

It was now proved that outward appearances were deceiving. In fact, the pigeon had been suffering severely from lack of the bone-building material calcium phosphate. So great had been the drain upon the breast bone and the skull that they had been reduced almost to the thinness of paper with many holes in it.

Calcium phosphate, needed in the bird's blood, was drawn from the bones of the skull and the breast. In a word, this pigeon was eating away its own bones. There was not enough calcium phosphate in its food for the normal needs.

Scientists of Johns Hopkins University, aided by other scientists from General Motors laboratory in Denver, show a working model of a molecule of "chlorobenzine."

They show how the different atoms act within the electron, although no human eye has seen a molecule. A molecule of water, for instance, has two atoms of hydrogen and one atom of oxygen, and to make the molecule visible to the naked eye you would have to magnify the drop of water to a diameter of one hundred thousand miles. Of the atoms that make up the molecule, each is a little solar system much like our own, with its sun called the nucleus, or proton, at the center, and the electrons, its "planets," revolving around it.

Teeth are those white things you have pulled just before the physician says: "Well, it must be the tonsils, then."—*Nelson (B. C.) News.*

◆ FRIENDLY BY-WAYS ◆

THE AUTUMN

The autumn time is with us! Its approach
Was heralded, not many days ago.
The hazy skies that veiled the brazen sun,
And the sea-like murmurs from the rustling corn,
And low-voiced brooks that wandered drowsily
By purpling clusters of the juicy grape,
Swinging upon the vine. And now, 'tis here,
And what a change hath passed upon the face
Of Nature, where thy waving forests spread,
Then robed in deepest green! All through the night
The subtle frost hath plied its mystic art,
And in the day the golden sun hath wrought
True wonders; and the wings of morn and even
Have touched with magic breath the changing leaves.
And now, as wanders the dilating eye
Athwart the varied landscape circling far,
What gorgeousness, what blazonry, what pomp
Of colors, burst upon the ravished sight!
Here, where the maple rears its yellow crest,
A golden glory; yonder, where the oak
Stands monarch of the forest, and the ash
Is girt with flame-like parasite, and broad
The dog-wood spreads beneath a rolling field
Of deepest crimson; and afar, where looms
The gnarled gum, a cloud of bloodiest red!

WILLIAM D. GALLAGHER.

EVENING

From upland slopes I see the cows file by,
Lowing, great-chested, down the homeward trail,
By dusking fields and meadows shining pale
With moon-tipped dandelions; flickering high,
A peevish night-hawk in the western sky
Beats up into the lucent solitudes,
Or drops with griding wing; the stilly woods
Grow dark and deep, and gloom mysteriously.
Cool night-winds creep and whisper in mine ear;
The homely cricket gossips at my feet;
From far-off pools and wastes of reeds I hear
With ebb and change the chanting frogs break sweet
In full Pandean chorus; one by one
Shine out the stars, and the great night comes on.

ARCHIBALD LAMPMAN.

WILD GEESE

I watched them, gray against a leaden sky,
Two brave wild geese, how close — how close they fly.
How can they know that colder days are near
Ere on the hills the first white frosts appear?
What seek they in the land of fern and rose,
Gray pilgrims of the air, who knows? Who knows?

Far in the distance, fading from my sight
Into the dusk that deepens fast tonight,
I still can trace the shadow of a wing;
Is this the route they followed North last Spring?
A shaft of lightning spirals down a cloud;
Will they grow fearful, they who flew so proud?

I cannot see beyond the ebon mass
Of storm a beetling wall that they must pass.
May they fly safe until the break of day,
Two gallant souls across a trackless way.
Two gallant souls — aye, here the secret lies:
Together, two can dare the darkest skies.

LALIA MITCHELL THORNTON.

OCTOBER

Over the hills a mellow haze
Cast, halo like on magic days;
Trees robed in red, the farewell call
Of Summer birds, and over all
Breath of rich earth and waterfall.
Echoes like dreams of long ago
Regilded in the sunset glow.

PERCY SHAW.

VOICES

Every wood has voices of its own—
Birches are silver castanets that play
Delicate airs with slender, golden hands
To charm the loitering hearer's heart away.
Pines speak in chords like organ notes; the wind
Raises strange melodies that drift like song
From out the crested tops that are so tall
That partly to the azure they belong.
Oaks are a whispering, improvising clan,
But I have heard them sing, and sigh and sing
Until my heart was restless as a bird
Homing at dusk on circling, hurried wing.

—ELEANOR ALLETTA CHAFEE.

NOT IN VAIN

If I can stop one heart from breaking,
I shall not live in vain;
If I can ease one life the aching,
Or cool one pain,
Or help one fainting robin
Into his nest again,
I shall not live in vain.

EMILY DICKINSON.

THE AMERICAN'S CREED

I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity for which American patriots sacrificed their lives and fortunes.

I therefore believe it is my duty to my country to love it; to support its constitution; to obey its laws; to respect its flag; and to defend it against all enemies.

WORTH REMEMBERING

If your nose is close
To the grindstone rough,
And you hold it down
There long enough,
In time you'll say
There's no such thing
As brooks that babble
And birds that sing.
Those three will all
Your world compose
Just You, the Stone,
And your darned old Nose.

—THE JOHN HANCOCK FIELD.

DIVINE FIRE

Flame of the maples,
You've seen it before,
Here once again
It burns at your door.

Crimson and russet,
Umber and gold
Blazing in splendor
For you to behold.

Though you may try it
As hard as you please,
You can't deny it—
There's God in the trees!

E. LESLIE SPAULDING.

SOCIETY ANNOUNCEMENTS

AMERICAN DENTAL ASSOCIATION TO JOIN WITH CHICAGO CENTENNIAL DENTAL CONGRESS IN 1933

The 1933 meeting of the American Dental Association will be held in Chicago in conjunction with the Chicago Centennial Dental Congress. Announcement to this effect was made at the conclusion of the recent American Dental Association meeting in Buffalo, N. Y. All the legislative and scientific sessions and the commercial exhibition will be held in the Stevens Hotel, August 7-12, inclusive. These dates were chosen so that the sessions of the Congress would be held during a most delightful week of the Chicago Century of Progress Exposition, popularly known as The World's Fair.

In order that everyone may have a proper conception of the origin of the Chicago Centennial Dental Congress, the following historical facts are recorded. Almost three years ago when preliminary plans for A Century of Progress Exposition were being formulated the Chicago Dental Society received a request from Mr. Rufus Dawes, President of the Exposition, to arrange for a meeting of dentists in Chicago during the period of the Exposition. It was suggested by Mr. Dawes that this meeting be international in scope and portray the progress in dentistry during the past one hundred years. This theme coincides with that of the exposition, the purpose of which is to portray the advances made in all branches of human endeavor during the period of Chicago's existence, which will be one hundred years in 1933.

The Chicago Dental Society, in order to meet this request decided to postpone its 1933 Annual Meeting, originally scheduled for January, and stage a meeting during the period of the exposition which would eclipse, from every angle, any dental meeting held up to that time. To carry out this broad purpose the Board of Directors of the Chicago Dental Society appointed a commission which ultimately developed the Chicago Centennial Dental Congress. The congress now functions as a separate and independent unit.

At the Memphis meeting of the American Dental Association, held in October of 1931, the officers of the congress consisting of Drs. Arthur D. Black, president; Hugo G. Fisher, vice-president; Stanley D. Tylman, secretary, and Christian Davidson, treasurer, presented to that association an invitation to hold its 1933 meeting in Chicago in connection with the congress. The invitation was tentatively accepted and a committee was appointed to work out the details with officials of the congress. Several meetings were held and a mutually satisfactory agreement reached. This special committee of the American Dental Association reported to the association in Buffalo when final action was taken.

With the cooperation of the editor of this magazine we will, in the several issues to be published before the opening of the congress, give complete and detailed information concerning this great dental congress. We know that every member of organized dentistry throughout the world will want to attend and see and learn what his profession has done for the health and happiness of the human race.

The vacation aspect of A Century of Progress Exposition is immediately apparent. Never in the history of dental meetings has there been the equal of such an opportunity to combine business, education and pleasure.

The Chicago Centennial Dental Congress invites you. Make your plans now, distant as the date may seem, to participate in and enjoy the benefits of a dental gather-

ing which will be a landmark in the annals of our profession.

ARTHUR D. BLACK, President.
STANLEY D. TYLMAN, Secretary.

RESOLUTION

(*Resolution presented by H. W. Oppice and adopted by the Society in general session, May 11, 1932.*)

Whereas, The Illinois State Dental Society at its annual meeting held at Springfield, Illinois, May 10, 11 and 12, 1932, adopted a resolution placing the Society on record as favoring the enactment of a law prohibiting engaging in the practice of dentistry in this State from certain types of organizations; and,

Whereas, We, the members of the Illinois State Dental Society, believe it to be for the best interests of the public that any corporation, company or association, engaged in the practice of dentistry, except approved hospitals, dental schools or educational institutions, or those organizations purely charitable in character, be looked upon with disfavor; and,

Whereas, The requirements for membership in many other recognized dental societies throughout the United States preclude those persons who are in any way associated with corporations in the practice of dentistry; therefore, be it

Resolved, That it shall be incompatible with the requisites of membership in this Society to be connected in any way with any organization practicing dentistry except those institutions exempted in the second paragraph.

EASTERN ILLINOIS DENTAL SOCIETY

The regular fall meeting of the Eastern Illinois Dental Society was held at Mattoon, Illinois, September 27, 1932. Dr. Maynard Hine gave a very interesting paper on "Ulcerative Gingivitis" followed by lantern slides. There were also a number of interesting clinics: Demonstrated Models of the Face by Drs. Hine and Hine; Indirect Gold Inlays by Dr. Lumpp; How to Repair Plates With Vulcanizable Gutta Percha, by Dr. C. L. Edwiston; Demonstrating Models, by Dr. W. J. Gonwa; A Few Little Things Around the Office That Are Simple But Practical, by Dr. Don Butler; An Indirect Inlay Technique, by Dr. R. H. Dixon; An Old Way of Constructing Gold Crowns, by Dr. W. B. Lym; Relining Plates With Alum-O-Line, by Dr. G. O. Ruff; Exhibit of Some Unusual Dental Things Which I Have Come Across in Thirty Years of Practice, by Dr. G. F. Corley; Rebasing, by Dr. Robert Taylor, and Report on the Baxter Inlay Method, by Drs. Kennedy and Taylor.

The newly elected officers are as follows: President, G. O. Ruff, of Paris, Illinois; Vice-President, G. F. Corley, of Mattoon, Illinois; Secretary, W. J. Gonwa, of Chrisman, Illinois; Treasurer, Robert Taylor, of Villa Grove, Illinois.

The next meeting will be held at Charleston, Illinois, April 13th, 1933.

W. J. GONWA, *Sec.*

KANKAKEE MEETING

The Kankakee District Dental Society held its annual golf tournament at Shewami Golf Course, Watseka, Sept. 22nd. The low gross cup was won by Dr. Roberts of Streator, the handicap cup by Dr. E. D. Martin of Watseka.

Other prizes went to Dr. E. J. Nourie and Dr. A. C. Willman of Kankakee and Dr. L. P. Dunn of Hoopeston.

After dinner had been served and the prizes presented Dr. Homer Peer of Urbana gave a talk on matters of vital interest to all.

WARNING

Dentists should inform their patients in these times of stress to give no audience to people coming to their homes, purporting to buy discarded dental appliances, jewelry, etc. There are so many ways of defrauding, to say nothing of baser motives such as contemplated burglary, that extreme caution should be used.

THE A. D. A. MEETING

The 74th annual session of the American Dental Association held last month at Buffalo, New York, was a most successful meeting and attracted the largest attendance of any A. D. A. meeting in recent years. The excellence of the program alone warranted the large attendance; but also were there the many attractions of Buffalo which has been for years a popular convention city, situated as it is in the center of a country rich in natural beauty and historical romance. Together these were inducement enough for several thousand members, and they were well repaid. The program and arrangements were exceptional, and ideal, early fall weather prevailed throughout the meeting, adding much pleasure to the meeting.

Illinois was well represented with approximately thirty members taking an active part in the general program. Too many outstanding papers and clinics were presented to permit of anything in the nature of a review here, the papers, of course, will appear in the Journal of the A. D. A. But for those who are fortunate enough or wise enough to make the yearly pilgrimage to these great meetings, there is the inspiration that comes from meeting again old friends from far places, from the exchange of ideas, and the great privilege of hearing those men whose efforts, on our behalf, have made them the leaders of our profession. To go once is to hope to go again, surely in no other way can one pack so much of instruction and enjoyment into so short a time.

In the House of Delegates considerable attention was given the report of the committee on Dental Educational Publicity. The purpose and endeavors of this committee had been widely discussed in the past few months oftentimes by men who lacked any definite knowledge of the committee's program. The interest exhibited by all members in this question as to whether or not paid advertisements or publicity by organized groups should be permitted or encouraged, resulted in a lengthy discussion, culminating finally in the adoption of resolutions commending Dr. Walker and his committee for their untiring efforts on the educational program, and, recognizing that these efforts had been grossly misunderstood, recommended that the work of this committee be suspended for one year in which time further study of this problem must result in either a definite condemnation, or an acceptance as ethical, of paid publicity when carried on by any organized group.

Dr. Dewey presided at all sessions with his customary unperturbed and impartial manner, exhibiting an uncanny ability to quickly untangle parliamentary knots. The election, at the final session, resulted as follows: A. C. Wherry, Salt Lake City, Pres.-Elect; G. G. Prichard, Buffalo, 1st Vice Pres.; Franklin B. Clemmer, Chicago, 2nd Vice Pres.; Olin Kirkland, Alabama, 3rd Vice Pres.; Harry B. Pinney, re-elected Secretary; Roscoe Volland re-elected Treasurer, and for Trustee from district 8 (Illinois) Thomas L. Grisamore, Chicago. Following the election, our own G. Walter Dittmar was installed as President of the American Dental Association.

We hereby tender our felicitations to these distinguished gentlemen, they have well earned the honors conferred on them and we congratulate the American Dental Association.

A. B. P.

If things are going badly with you and your business, don't vitiate your effectiveness, your mental vitality, your courage, by indulging overmuch in either self-reproach or self-pity. Weeping over might-have-beens weakens your might to wrestle with present realties.

Reflect that the Pennsylvania Railroad for the first time in eighty-five years has stopped paying dividends, that General Electric, Atchison, General Motors, Union Pacific, Cities Service, New York Central, Anaconda, Southern Pacific, United States Steel, Baltimore & Ohio, Swift & Co., Insull companies and a host of others have had either to stop or reduce their dividends.

Don't become obsessed by an inferiority complex. Don't conclude that you are no good. Don't surrender. Don't give up the fight. Fight!

Official Notice to Component Society Secretaries

The component society secretary shall send the membership cards and dues of the individual members to the state secretary as soon as they are received. The amount to be remitted for each member is as follows:

State Society dues, $4.00; A. D. A. dues, $4.00.....$8.00
In remitting delinquent dues, send a separate membership card for each year's dues.
Make all checks payable to BEN H. SHERRARD, Secretary.

A member shall pay his dues to the component Society in whose jurisdiction he resides or practices, even though he affiliates with another component Society.

When a member in good standing of one component Society changes his residence in this state, his name may be transferred, without cost, to the roster of the component Society into whose jurisdiction he moves.

Members delinquent in dues and who for this reason alone have been suspended, may be reinstated to membership by the payment of dues of the current year, plus the back dues of the preceding year. Members who have been delinquent in dues for a period of more than five years, may be elected to membership as new members, provided in each case said delinquent shall be recommended by his local Society. The secretary of the component Society shall furnish an application blank form of reinstatement. These forms must be filled out completely in all cases and said forms shall require as endorsers two members in good standing of the local component Society to which the reinstatement application is addressed.

Life members are exempted from paying State Society dues only. They must pay local dues, unless exempted by their component Society, and American Association dues, $4.00.

The Local Secretary's Report Blank, as to component Society meetings, should be carefully filled in, giving a short account of the meeting for publication in THE JOURNAL, and mailed promptly to the state secretary after each meeting.

Brief reports of deaths for THE JOURNAL should be sent to the state secretary. An extended report of same should be sent to the chairman of the Committee on Necrology, Dr. E. T. Evans, Standard Life Building, Decatur, Illinois.

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CHICAGO	Howard C. Miller, 185 N. Wabash Ave., Chicago, Ill.	Stanley D. Tylman 185 N. Wabash Ave., Chicago, Ill.	Chicago	Third Tuesday of each month except June, July and August.
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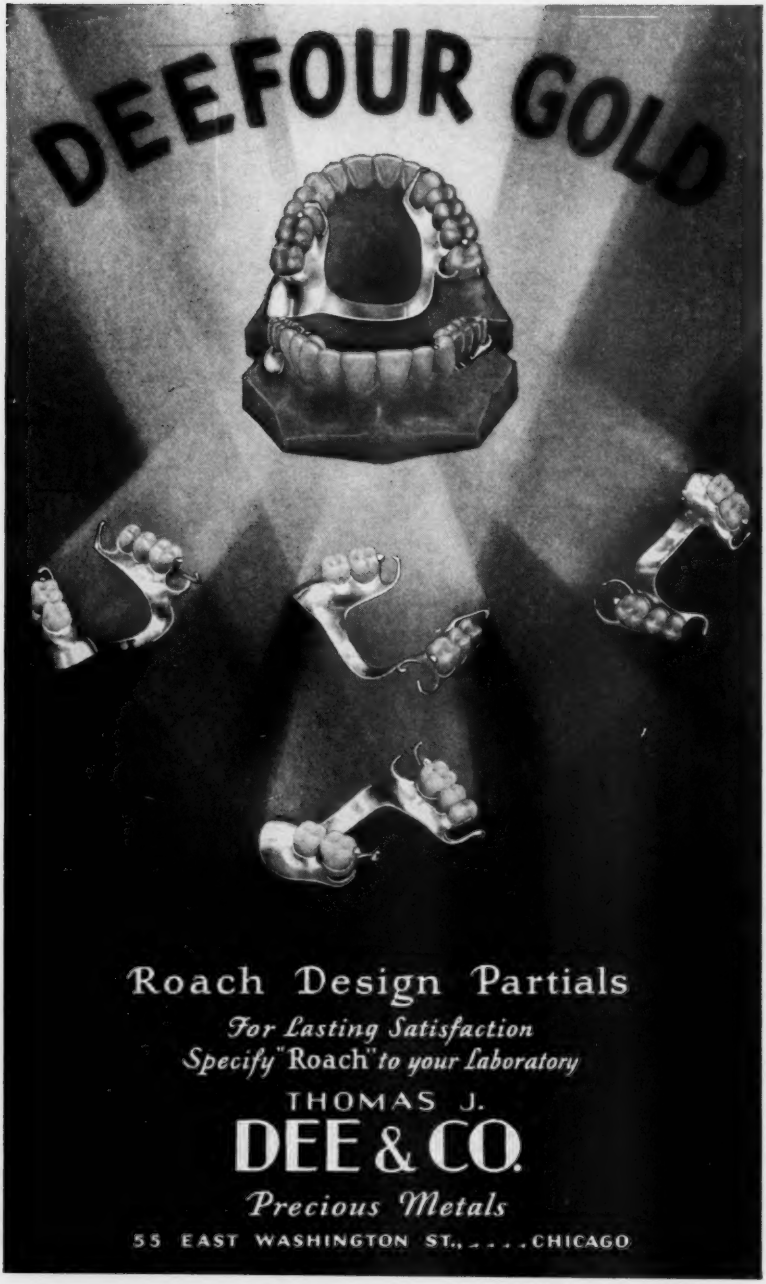
"It takes 53 muscles to Frown and only 13 muscles to Smile, so why waste your energy"

—*ANONYMOUS*



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